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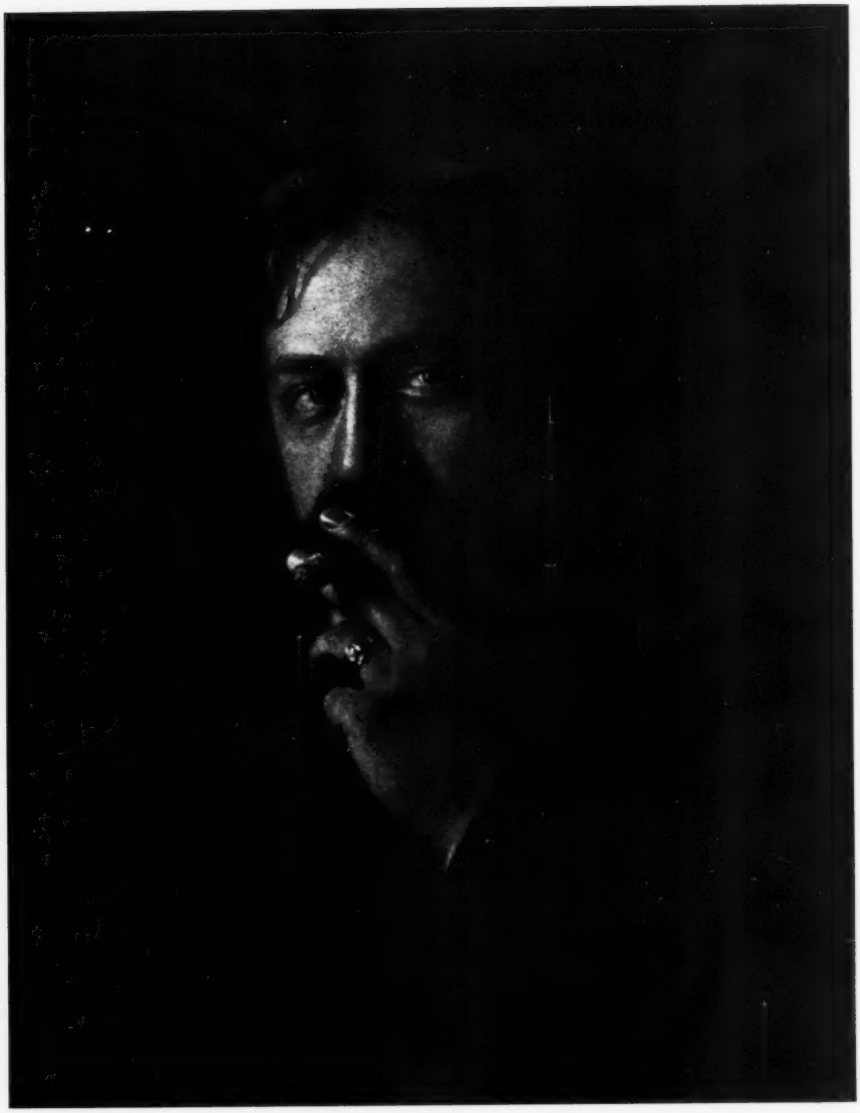

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The Work of G. R. Ballance

PHIL M. RILEY

MANY of our readers have doubtless greatly admired the superb photographs of Swiss scenery by G. R. Ballance, which have been reproduced at frequent intervals in this magazine since January, 1907, and, like ourselves, have thought this accomplished artist a Frenchman. Although of French extraction, he is an Englishman, and took up photography only for pleasure on going abroad for his health about twelve years ago. The suggestion of making photographs first came in the form of a thirty-shilling magazine-camera presented by a friend. With this, after recovering his health, Mr. Ballance traveled about making views, noticing all the time the inferior quality of the professional prints everywhere on sale. In no case did they do justice to the beauties abounding in Switzerland and elsewhere in Europe. Thinking that there might be an opening for a better class of work, he followed up the idea with a better equipment and met with remarkable success. To-day his prints are on sale extensively in Europe and are almost as well known in America.

Mr. Ballance is a technician of marked ability, and as he has confined himself for the most part to the use of backed Isochromatic plates and rough Platinotype paper, he knows every detail of these processes perfectly and the control of his medium is absolute. The chemical effect so noticeable in most of his prints is superb and enables him to do full justice to the atmospheric conditions prevailing in high altitudes where he delights to work. Although the technical excellence of his prints has done much to increase their sale, the real secret of his success, we believe, is due to their pictorial qualities; for the artist has, when photographing well-known objects, passed by the customary view-points in every case and chosen new ones of his own. In this way the scenes become more picturesque, authentic and show something of the individuality of the maker, all of which qualities make them more desirable as souvenirs for tourists. It is in order to increase his wonderful collection of views that Mr. Ballance will travel this summer in the Tyrol and Black Forest, both splendid fields for camera-

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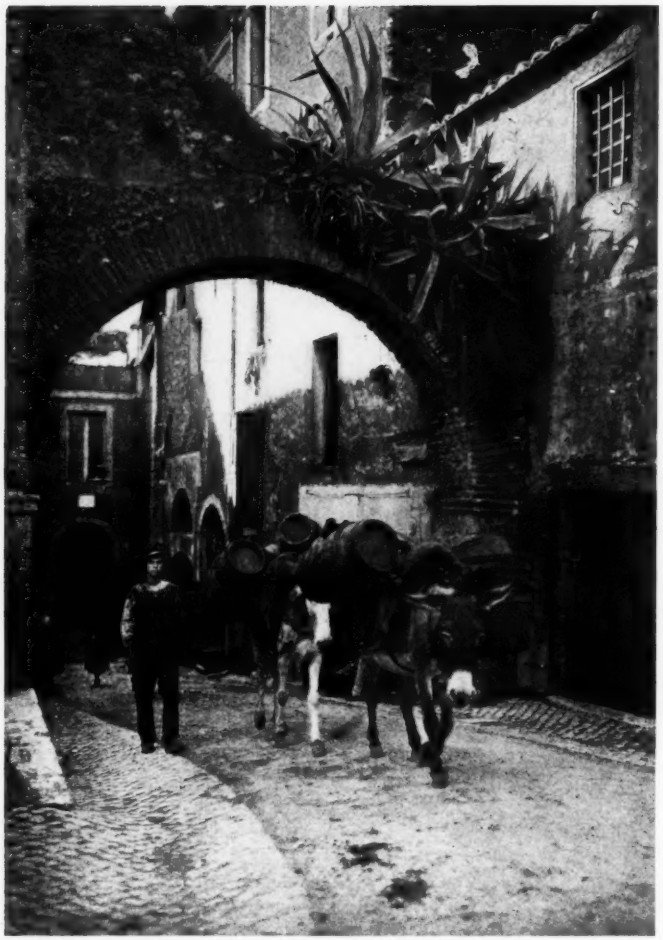
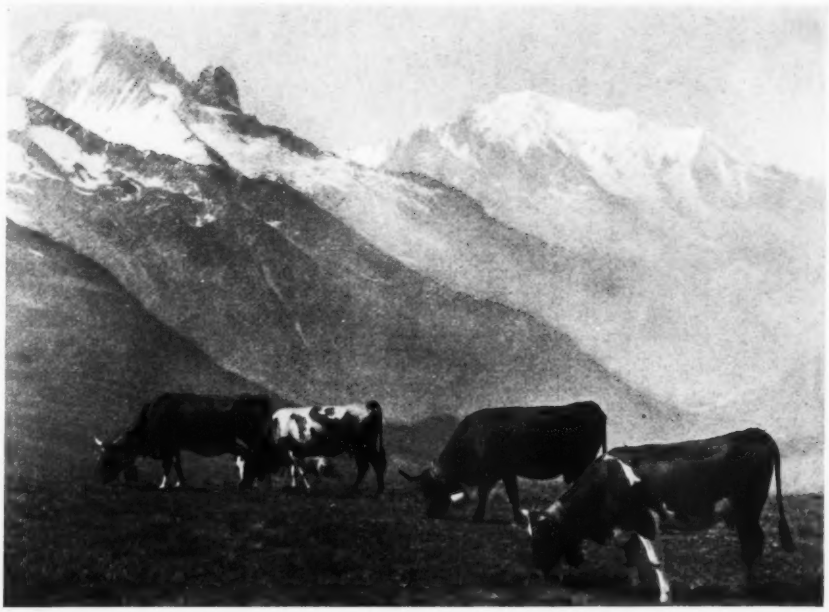


G. R. BALLANCE STREET SCENE, TIVOLI

work and practically untouched from an artistic point of view. Some carefully selected examples of this new work will probably appear in PHOTO-ERA later.

In personality, Mr. Ballance is a vigorous, virile type and holds strong opinions on matters photographic. In this connection, however, it may perhaps be better to let the gentleman speak for himself, and we therefore quote from a letter recently received:

"With regard to my views on photographic matters, I am strongly in favor of pure photography — the modern, retouched, double-printed, faked fuzzy-



G. R. BALLANCE SCENE ON THE COL DE BALME

wuzzyotypes seem to me like nothing in nature; and surely nature is beautiful enough without attempting any such doubtful improvements. I never exhibit, not valuing the opinion of judges who have never seen the subjects depicted and who are, therefore, not in a position to say whether the lighting, tone and subject are consistent. Recent much-admired photographs of Venice in a London fog, with steeples out of focus and English clouds printed in upside down, seem false to me, bad art and a libel on Venice as I know it.

"It greatly amused me to send in to the London Salon a study of olive-trees printed through the back of glossy sepia platinum paper, producing a blotchy image of a dark, dirty, yellow, mud color, the whole picture having not the slightest resemblance to anything on earth except, perhaps, broken firewood as might be seen through a jar of Thames water by a drunken man suffering from jaundice. The picture was, of course, accepted, and my only hope is that no one took it for a serious attempt on my part at depicting the beauties of an Italian olive grove, with the slate-gray, gnarled old trunks and the shimmery sunshine on the light foliage.

"I have had no art education except what could be picked up in a scrappy manner from books and periodicals. I take the pictures which please me, and it is seldom that they do not please the public, which is each year becoming more appreciative of the artistic possibilities of photography and more dis-

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G. R. BALLANCE SAN VIGILIO, LAKE GARDA

gusted with the usual omnipresent trade 'views of the place.' On visiting a new locality I lounge about the landscape choosing a point of view, deciding the best light, etc., and wait, sometimes, weeks to get exactly what I want — spending days over a subject and then doing nothing because the clouds would not compose to make a harmony of the picture, or because the reflections were not right or a necessary tree was moving in the wind when a time-exposure was essential.

"With regard to the technical part of my work, I am very conservative, using the old, slow isochromatic backed plates and a pyro developer. As a printing-medium I employ rough Platinotype, and always for everything one standard size — English half-plate. Hundreds of inquiries come to hand for smaller or larger sizes, lantern-slides, enlargements, opals, transparencies, prints on carbon, silver, bromide, etc., but I do nothing with them, preferring to specialize in the one thing, 'Platin Photo-Studies,' now known all over Europe. Every platinum print bearing my signature has been, until now, made and finished by me personally, and, as my output has been 150,000 prints during the last three years, you can understand that the work entailed has not left me much time to break new ground. Seeing the impossibility of further expansion on these lines (employees will not or cannot turn out prints of the same quality), I am seriously considering the advisability of adopting other methods of printing which will leave me freer for the more interesting part of the work."

Surf and Seashore Photography

WILLIAM S. DAVIS

NOW that the vacation season is at hand, and many amateurs will be spending their time at the seashore, a few notes on this branch of photography may prove of value, especially to those who have never tried it. In the first place, owing to the amount of light reflected from both shore and water, it is necessary to use special care to guard against fog, which may be caused either by light shining into the lens or penetrating some portion of the camera. The bellows, especially, should be examined for minute "pin-holes," which may make their appearance in the folds; for, while minute holes might not cause trouble in ordinary landscape or indoor work, they certainly would raise havoc at the seashore. The holders should also be examined to make sure that the slide-curtains, in the end, are in good order. To guard against reflected light entering the lens, a cardboard tube which will fit over the lens-tube should be made, to act as a shade. It will also be useful on windy days to prevent spray from reaching the lens. Regarding the question of apparatus, there is little to be said, but of choice. A substantial camera with long bellows, fitted with a long-focus lens, will be found the best. Add to this a good tripod which will not blow away with a passing zephyr, and the outfit will be complete.

The best time of day for making the exposure will, of course, depend upon circumstances; but during the summer months it will be found best not to work between 10 A.M. and 2 P.M., as the sun's rays are then too nearly vertical for objects to cast good shadows, and a scene without good shadows will appear flat. During the late fall and winter months this rule will not apply to quite the same extent, as the angle of the sun's rays is greater than in summer, at the same time of day. I have, however, even during October and November, obtained some of my best results within an hour or two of sunset. On the subject of exposure there appears to be an extraordinary idea prevalent among American photographers that it is impossible to make too short an exposure, or use too small a stop in the lens, it being common to advise an exposure of one one-hundredth of a second with stop f/32, or even smaller. The result of this sort of instruction is often seen in photographs of black rocks and white-paper skies, which look like a mere combination of whitewash and lampblack, without any gradation of tone. On the subject of exposure, a lesson may be learned from some of the best English workers, who advise a slow shutter and a stop large enough to preserve the atmospheric effect. From experience, I believe the best spray-effects will be secured by an exposure of from one-twentieth to one-thirtieth of a second. If the exposure is slower than one-twentieth there is danger of the spray looking "woolly." If faster than one-thirtieth it is likely to appear "frozen," an effect the eyes never see, and absolutely fatal to the appearance of motion. In focusing, care must be taken to preserve the atmospheric effect, by using a stop of sufficient

WILLIAM S. DAVIS SURF

size. None smaller than f/16 should be used (unless the lens is of very long focus) and generally f/11 will give all the depth of focus necessary. If the exposures are made in the early morning or late afternoon $\frac{1}{25}$ second with f/11 will be about right, with a fairly rapid plate. For work in stronger light it is better to use a slow or medium plate, rather than a faster speed of shutter. Before making an exposure, watch the combers as they come in. Generally every third one is larger than the two preceding ones, and will give the best spray-effect. Considerable experience is necessary to acquire the knack of making the exposure at the right instant, as the exposure must be made while the spray is rising in order to obtain the maximum effect. The foregoing applies more especially to surf-work. In making exposures on quiet days, simply for the coast scenery, where the wave-effect is not the main feature, the exposure may be as fast or as slow as the light calls for; but even for such subjects a full exposure should be given to avoid harsh contrasts.

In the choice of plates the "Iso" or "Ortho" grades are by all odds the best, and to secure white foam against a delicate blue sky they are indispensable. Those who have a favorite brand will do best to continue using them, but, personally, I have found the Cramer Medium and Instantaneous "Iso" plates very satisfactory, and their excellent keeping-quality in the presence of salt air is an added advantage. In taking subjects with strong contrasts, backed or

non-halation plates will be found a help. A color-screen is not necessary if there is a good background of clouds; but if the surf has only blue sky as a background a light yellow screen may be used to advantage if the light is strong enough to permit of giving a full exposure. If not, it is better to trust to a full exposure on a backed "Iso" plate without a screen.

In developing exposures of surf the same rule holds good as for snow-scenes — to avoid over-development of the high-lights. Use a weaker developer than in ordinary landscape work, then stop development in time, and the result should be a soft negative with good detail and gradation in every part.

By way of reference to the accompanying illustrations, a few notes regarding their production may be found of use. "Surf" was taken about 4.45 P.M., on an October day with sunshine on the surf. Exposure, $\frac{1}{25}$ second; stop, f/11. Cramer Medium "Iso" plate. "A Stormy Sunset" was a snap-shot made late on a cloudy November afternoon, on a Cramer "Crown" plate.

In these few notes on seashore photography no attempt has been made to deal with the pictorial side of the work; for if the photographer already possess the knowledge necessary for the production of pictorial work, advice would be superfluous. On the other hand, if the worker has not the ability to recognize the pictorial possibilities of a subject the few lines of cut-and-dried rules which could be given in limited space would certainly fail to impart that knowledge; but as there may be those who know what they want but have had no opportunity to acquire the technical knowledge necessary to express their ideas, it is hoped the advice here given, which is the result of personal experience, may prove useful.

WILLIAM S. DAVIS A STORMY SUNSET

Ozobrome as a Method of Intensifying Negatives

WILLIAM FINDLAY

A NEGATIVE that requires neither intensification, reduction nor retouching is the desire of every photographer; but how seldom one gets it! It need not be said, however, that these after-processes detract from the value of the picture. Nay, they ofttimes enhance it.

When intensification has had to be resorted to it has been customary to use solutions of which mercuric chloride or uranium formed the basis; but to these can now be added another. It may not be new, but, so far as I know, it has not hitherto been published. The story of its discovery (if it is one) may best be told in a personal way.

In the beginning of November I cycled out to a haunt of mine for the purpose of securing a picture of a few scattered trees against a sunset. In this quest I was successful. The sky was beautiful when the photograph was taken, but the after-glow of sunset was a "poet's dream." My way homewards lay along the banks of a river, and, as I had several unexposed plates, I dismounted at various points on the roadway and prospected on the river-bank with the view of finding a suitable composition in which to include the magnificent aerial display. It was not until home was nearly reached, however, that a suitable one was found, and by that time passing vehicles had their lamps alight. Reds were predominant, and a long exposure on a rapid isochromatic plate with a screen was necessary to get even a trace of color-values. As little movement was taking place, two minutes' exposure, with an Aldis anastigmat working at f/6, was allowed. It was far too short, and when the plate came to be developed with a normal pyro-soda solution, it was fifteen minutes ere the faintest image appeared. The plate was then washed and placed in a stand development tank filled with rodinal, 1 in 75. Here it was left for two hours. It was then examined, and, though the picture was there, and some representation of the cloud-effects, it was a mere ghost of a negative. After rinsing, fixing, washing and drying, it was placed among the "wasters," with the regret that so much time had been devoted to it.

Intensifying a Ghost Negative

Some time afterwards, when working Ozobrome, the thought struck me that it might be possible to impart some life into this ghost by the process. A sheet of sepia tissue was selected. It was sensitized in the Ozobrome solution and under water was brought into contact with the negative. Having squeegeed them into closer fellowship, they were left in juxtaposition for ten minutes. At the expiration of that period they were plunged into a dish containing lukewarm water; and when the backing-paper was released, development was carried out by gently laving with a teaspoon. In a short time the negative was free from all superfluous color, and the faintest trace of an image was left. When it was re-

developed with amidol, however, a great transformation took place, and a negative of printing-density was procured. It did not come up to exhibition standard — far from it — but it allowed one to illustrate, in a faltering way, it is true, the prevalent atmospheric conditions. It also demonstrated clearly the fact that Ozobrome could be successfully used for intensification.

Some of the pigments may be quite unsuitable for this purpose, and the various shades will not give the same result. But the latter fact may be a strong point in its favor. Different degrees of under-exposure or insufficient development could be treated with different colors; viz., an extreme case of under-exposure by a dark pigment, and a slight case by one of a lighter hue.

The introduction of Ozobrome has put a valuable implement in the hands of photographers, and the knowledge that it can be used in the way indicated may save many a picture where an error in exposure would have otherwise militated against its successful reproduction.— *British Journal of Photography.*

The Commercialization of Ozobrome

IN a circular of instructions just issued by the Ozobrome Company the announcement is made of important improvements in the Ozobrome process, the sum and substance of which should be of the greatest interest to workers of the process, and particularly to those who employ it for commercial purposes. The Ozobrome Company have in their literature laid considerable stress upon the natural advantages afforded by their process for the commercial production of carbon prints and enlargements, particularly the latter, and their materials have, no doubt, been subjected to considerable experiment by professional photographers and the many firms who undertake enlarging and printing for owners of studios. Simple and speedy as the Ozobrome process is, there has in the past been one feature which, from the professional point of view, was a drawback to its constant practice. This lay in the necessity of renewing the pigmenting-solution when producing a large number of pictures of perfectly uniform character. It was found that while the first three, four or five Ozobrome prints treated in a pigmenting-bath were perfectly uniform, the quality was liable to fall off to some slight extent in the case of later prints passed through the same pigmenting-bath. The necessity of having to renew the bath, apart from the question of cost, was an obvious inconvenience to the worker undertaking the process on a considerable scale, and it is, therefore, of considerable interest to find that Mr. Manly has worked out a modified procedure which disposes of this drawback. The new working-method entails only the slightest modification of the present procedure, and costs practically nothing more than at present. It consists in using a weak bath of hydrochloric acid instead of water for the preliminary soaking of the pigment tissue. The latter is then transferred direct into the pigmenting-solution (one part of stock solution to four of water), and the subsequent

process, including contact with the bromide print, conducted as before. Apart from the regularity which this modification, when worked according to a system, gives to the process, it also allows of the method being adapted to originals of different characters, so that the Ozobrome result from a weak or from a hard bromide print can be corrected to a considerable extent. The difference in result is due to the absorption by the gelatine of the tissue of a definite quantity of acid solution. The following working-instructions are taken from the new circular just issued by the Ozobrome Company. The method, it should be observed, has involved a modification of the Ozobrome pigmenting-solution, and all solutions applicable to the new procedure are numbered 701 and upwards.* Those with a lower number should be worked according to the old instructions; that is, using a preliminary water-bath for the soaking of the tissue.

Acid Bath

Pure hydrochloric acid	1 dram	5 cc.
Water	25 ounces	1,000 cc.

This is a half per cent solution, and it should be made up by exact measurements, as the proportions are important. The pigment plaster is placed, face upwards, in this solution, and is kept beneath the surface during immersion, a mop camel's-hair brush being suitable for this purpose. As a guide to the time of immersion the following table may be taken: —

	Immersion of Plaster	
	Seconds in acid bath	Seconds in pigmenting-bath
For a normal bromide print with a good range of tone	30	90
For a bromide print that is weak and gray	10 to 20.....	90
For a bromide print that has strong black shadows and harsh contrasts	40 to 60.....	90

On removing the plaster (tissue) from this acid bath it is allowed to drain thoroughly, and is then transferred, face upwards, to the pigmenting-solution, where it remains for the time of one and a half minutes. It is then removed, allowed to drain, and drawn, face downwards, twice across the surface of a bath of clean water. The bromide print lies face upwards, and the sheet of tissue is brought, film downwards, in contact with it so as to avoid air-bells. The two sheets are then removed from the water together, squeegeed, left in contact the necessary time, and the remainder of the process is then proceeded with in the well-known manner, either Method 1 or Method 2, of the Ozobrome process. The first gives a pigment print above the bromide image, while the second gives a pure pigment print by transference to single transfer paper.

To test this modified Ozobrome process, we selected a bromide print showing plenty of fine gradations in the high-lights, and the result was a very marked success. The process worked without a hitch from start to finish, and all the gra-

*This applies to the English market only, although some similar designation will probably be made in America to denote the change when adopted.— Ed.

dations were beautifully preserved. We employed the second, or transfer, method and treated the bromide print as a normal one, giving thirty seconds in the acid bath and ninety in the Ozobrome bath. We have not yet had time to test very thoroughly the keeping-qualities of the modified Ozobrome solution, but it is evident already that they are far superior to those of the bath used in the original process. Mr. Manly is to be congratulated on what is certainly a very important improvement in this most useful process.— *British Journal of Photography.*

The Ozobrome-Oil Process

J. PARRACK

Doubtless some of the readers of PHOTO-ERA *who delight to employ a printing-medium which permits of a great amount of control and the infusion of individuality in treatment have taken up the oil process, described by Mr. E. O. Hoppé in this magazine for December, 1907. Those who have, and probably others, will be interested to know of the possibility of combining the oil pigment and Ozobrome processes as suggested below.*— ED.

THIS process, which should prove of considerable advantage to workers in the oil pigment process, enables the operator to obtain any number of oil-prints from a single bromide (or gaslight)print. In practice it is a combination of the Ozobrome process and oil-printing. The bromide print is prepared in the same way as for Ozobrome.

Place the bromide print in clean, cold water. Next take a piece of oil pigment paper (or any other paper suitable for oil-printing) and wet it in cold water. Then place it in dilute Ozobrome solution, made by adding four parts of water to one part of the concentrated solution. Allow the paper to remain in the solution two minutes. Lift it out and drain off the superfluous solution. Now draw the paper through clean water and bring it into contact with the bromide print. Take the two papers out and squeegee them into close contact. Leave for about twenty minutes. When this time has elapsed place the prints in cold water and separate.

So far the working has been the same as in the Ozobrome process, except that instead of pigment plaster oil pigment paper has been used. The rest of the operation is the same as in oil-printing.

Wash the paper to get rid of the Ozobrome solution. Place the paper on the wet blotting-pad, surface dry, and pigment as in oil-printing.

The bromide print should be washed, and then may be developed up with any suitable developer. It is then dried and kept for further use.

The oil-print will, of course, be reversed, but, as this process would be used principally in the case of enlargements, this is no drawback. If the operator in making the bromide enlargement intended for this process reverses his negative, he will obtain from it any number of oil-prints the right way round. There appears to be no limit to the number of prints obtainable.— *The Amateur Photographer and Photographic News.*

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Printing-Methods in Their Relation to Pictorial Photography

Part II. Adapting Negatives to Printing-Processes

PHIL M. RILEY

IT is, or should be, the aim of every photographer to produce perfect negatives, but most workers fail to maintain a very high percentage in this respect. Such a condition of affairs results from a scanty knowledge of exposure, and it may be truthfully said that most beginners would be more profitably employed in learning how to expose correctly and let normal development take care of itself than in studying how to control over and under-exposure in the developing-solution and doctor the finished negative.

Intensification and reduction are but methods for making the best of a bad job and they will seldom produce from a faulty negative one as good as would result from correct exposure and development. Even the most expert photographer, however, cannot make perfect negatives all the time, especially if working out-of-doors under varying conditions. Frequently a subsequent exposure is impossible, and quite as often, if the light-conditions have been a little unusual, the negative does not have the printing-quality desired for a certain paper. Since minor faults may be corrected by after-treatment and those of a more serious nature mitigated to a certain extent, it is well for every worker to know something of these methods. They should, however, be employed only as a last resort, and not as an excuse for careless work. In this article it is the purpose of the writer to treat those methods which are best suited to certain specific cases; but it is necessary first of all to know the faults to be corrected, and their causes.

In an article published in PHOTO-ERA two months ago I showed that normal stand development is best for the average camerist, because it brings out practically all there is in any exposure. In the same article I called attention to the three kinds of negatives produced by this method. Let us consider these first of all with reference to after-treatment.

The correctly exposed and developed negative, of course, does not require our attention, so we have but two classes to deal with.

The under-exposed plate, placed in the weak solution of the tank, has acquired density slowly, so that the details in the shadows have had an opportunity to build up meantime. Such a negative has a desirable degree of contrast and will respond to after-treatment much more satisfactorily than one which has been secured by tentative development and is too harsh, owing to over-development in a strong solution, with the hope of bringing out more detail. The treatment in both cases is the same, however.

The negative must first be intensified with mercuric iodide. Prepare the following solution in the order named, and use at once, as it will not keep.

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Intensifying-Solution

Water	1 ounce
Sodium sulphite crystals	20 grains
Mercuric iodide	1 grain

Immerse the negative in this solution and rock the tray gently to ensure uniform action, when in seven or eight minutes the image will have gained its full intensity. If less strength is wanted it may be removed sooner. When sufficiently intensified the negative should be washed in several changes of water and for a few minutes in a bath containing one dram of hydrochloric acid to each ten ounces of water. It should then be rinsed, swabbed off with a tuft of cotton and treated with an alkaline developer — pyro-soda or any developer containing sulphite — until the color of the image becomes a good black. Some negatives do not show any change of color in the developer, but in such cases they should remain immersed as long as would be required to develop a correctly-exposed landscape. Fixing is not necessary after development, but washing should be thorough.

This intensifier is not at all suited for over-exposed negatives, as the increase in density is considerable and is in the same proportion throughout the scale, the shadows being strengthened in the same ratio as the high-lights.

The shadows having been made the most of, it now becomes necessary to reduce the excessive density of the image — particularly in the high-lights — with an agent which has comparatively little effect upon the shadow-detail. This may be accomplished with ammonium persulphate, and its use is described toward the end of this article.

The last class of negatives which usually result from stand development are those which have been over-exposed and fully-developed. Although quite dense, prolonged development has given them some contrast. Reduction is desirable, and Farmer's reducer will cut down the excessive density uniformly throughout all gradations without affecting the relative opacity. Make up ten per cent solutions of hypo and potassium ferricyanide. The latter is quickly decomposed by daylight and should be protected from it in solution; also it is well not to intensify in strong light. For use, mix half an ounce of the ferricyanide solution with five ounces of the hypo solution and immerse the well-soaked negative. When sufficient reduction has been secured, thorough washing and drying are the only subsequent operations required.

If the degree of over-exposure has been excessive, the negative may be flat and lacking in contrast after reduction. In such cases subsequent intensification with mercuric chloride and sodium sulphite will be beneficial. It is well, however, to dry the negative between reduction and intensification to prevent too great softening of the film and frilling. Thorough washing between these operations is also essential.

These extreme over-exposures are rather difficult to handle because they present two defective qualities of opposite character. This is especially the case

if development has been short. The high-lights are very weak and of insufficient printing-density, even though the shadows were clear, but being badly veiled the poor quality of the negative is all the more strongly marked.

The first step towards a remedy is to remove the fog or veiling with Farmer's reducer, as just described. The action should be stopped when the shadows are almost clear but still possess a slight density. If reduction proceeds too far and the shadow-details are entirely removed, they cannot be restored. The negative must also be judged as a whole, and its general character upon leaving the reducer should be such that a little strengthening will produce a negative of good printing-quality. Intensification may now be proceeded with, using mercuric chloride, as described below for over or correctly-exposed and under-developed negatives.

When the degree of over-exposure has been considerable, but not great enough to require both reduction and intensification, a permanganate reducer is, perhaps, better than Farmer's, because it acts principally upon the surface of the film. There lie the shadow-details, while the high-lights extend further down into the film. Such a negative requires removal of the density which obscures the shadow-details without reduction of the opacity of the high-lights. This opacity is little enough in an over-exposed plate, and is necessary to give sufficient vigor to the print. A good formula is:

Water	10 ounces
Potassium permanganate	16 grains
Sulphuric acid	8 minims

Wash the negative thoroughly when sufficiently reduced. Brown stains, if they appear, may be removed in a one per cent solution of oxalic acid.

The worker who is not experienced in timing his exposures and employs tentative methods of development is likely to have a greater variety of defective negatives than are produced by time development in the tank. It will be necessary, therefore, for us to still further investigate the possibilities of after-treatment.

For an over-exposed and lightly-developed negative, or one which has been correctly exposed but lacks vigor as a result of under-development, there is nothing better than intensification with mercuric chloride followed by sodium sulphite.

Bleaching-Solution

Hot water	10 ounces
Mercuric chloride	¼ ounce
Potassium bromide	¼ "

Immersion in this solution, after it has been allowed to cool, thoroughly bleaches the negative, when, upon examining the back of the plate, the image should appear as a fine white positive. The plate must now be washed for fifteen minutes in running water and then immersed for a few minutes in a bath containing one dram of hydrochloric acid to each ten ounces of water. This frees

G. R. BALLANCE EDELWEISS AND SILENE

the gelatine film of mercury. After this the negative must be washed again for a few minutes and then bleached in a solution composed of one ounce of sodium sulphite to ten ounces of water. When the blackening is completed the negative may be washed and dried in the usual manner.

This method of intensification is peculiar in that it builds up the stronger portions of the image without a corresponding effect upon the extreme shadows. The gain in density is definite and cannot be increased by repeating the operation. The medium and strong portions of the image are strengthened to about double their original printing-density, while the shadow-details are but little affected and the slight veilings not at all. It is obvious, therefore, that this method is entirely unsuited for treating under-exposed negatives.

Negatives which have too great density are the result of prolonged development and should be reduced to bring them to normal printing-quality. Dense negatives mean slow printing and consequent vigorous contrasts. If the negative of a subject which has no extremes of contrast has been over-developed its density should be taken down with Farmer's reducer. It is more often the case, however, that the high-lights are too dense and that the negatives would be improved by lessening the contrasts. Immersion in a solution of ammonium persulphate, fifteen grains to the ounce of water, reduces the high-lights considerably more

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G. R. BALLANCE LAKE SCENE NEAR TREMEZZO

than the shadows; in fact, the former may lose half their strength while the latter are scarcely affected. The negative should be well soaked in water before immersion in this bath, and when reduction is sufficient, immersion for one minute in a ten per cent solution of sodium sulphite stops the action of the reducer. Thorough washing completes the operation. Once in a while after a long immersion a red appearance presents itself, but this may be removed by a few minutes' immersion in an ordinary fixing-bath. Care should be taken not to carry reduction too far, as with this method intensification cannot be successfully effected except with silver nitrate — a somewhat complicated process. Do not use the persulphate bath after it becomes turbid.

This method of reduction is also suitable for negatives which, although slightly under-exposed, possess some detail in the shadows but have been over-developed in the hope of forcing out more detail and, as a result, the high-lights are too dense.

Before leaving this subject it may be well to caution the worker to observe the utmost care and strictest cleanliness in all processes of producing the finished negative. Any slovenliness in these matters is almost sure to assert itself in the form of stains when after-treatment is resorted to. Clean and careful development, rinsing before applying the fixing-bath, thorough fixation and washing make for success.

Having treated the possibilities of the best methods of after-treatment, some consideration may be given to the printing-quality demanded by different papers. This will furnish a guide to the degree of intensification or reduction required, as well as a help in choosing the process best suited to a certain case. Reference to the following table will give the desired information.

Kind of Paper	*Nature of Negative Required*
Gaslight	A very soft, detailed negative
Carbon	A trifle more plucky than the foregoing
P. O. P.	Medium contrast with plenty of detail and delicate gradation
Self-toning Contact Bromide by Artificial light	A trifle more plucky than for P. O. P.
Bromide Enlargement Platinum	A somewhat vigorous negative with good shadow-detail

While it is possible to improve most defective negatives before printing, it is far more satisfactory to produce by intelligent development negatives of suitable

G. R. BALLANCE THE EIGER AT SUNRISE

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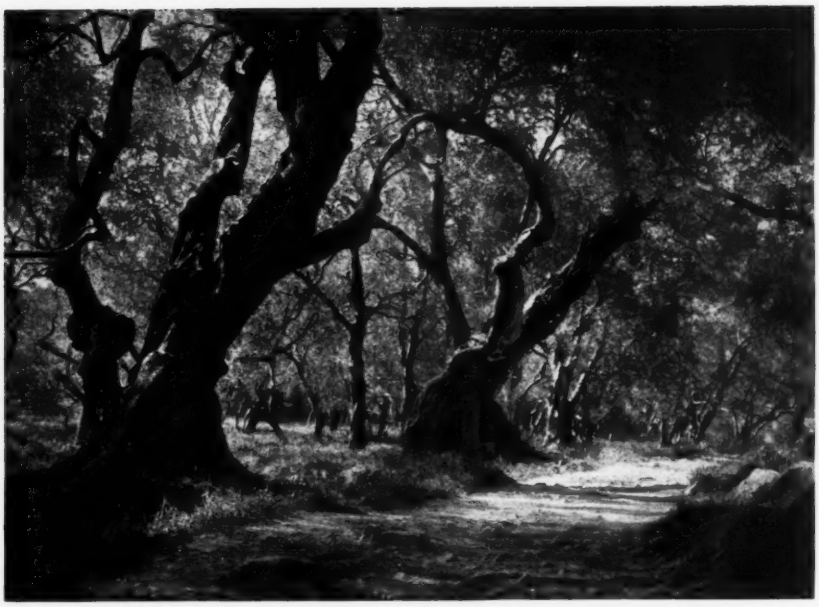


G. R. BALLANCE — OLIVE-GROVES NEAR SASSO

quality for a certain kind of paper. This may be done by adopting some such scheme of development as is here indicated. Take, for instance, the formula for the Stanley plate:

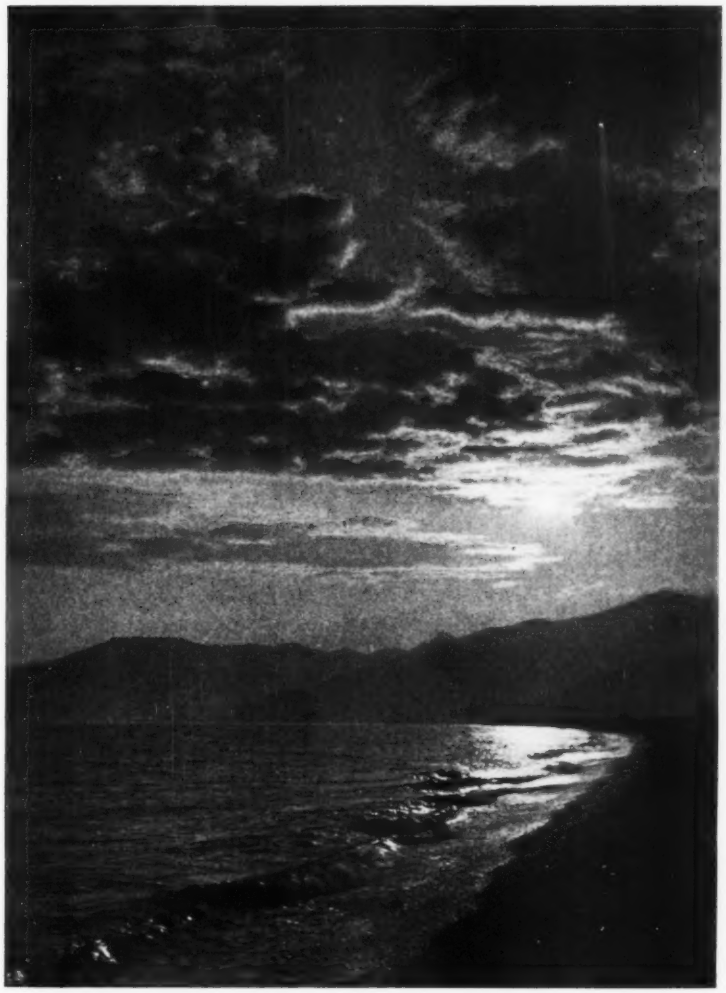
No. 1

Water	80 ounces
Sulphuric acid	½ dram
Pyro	1 ounce

No. 2

Water	80 ounces
Sodium sulphite crystals	6 "
Sodium carbonate crystals	6 "

Equal parts of Solution 1 and Solution 2 produce normal negatives suitable for P. O. P. and self-toning papers. Two parts of Solution 1, three parts of Solution 2 and one part of water yield soft negatives for gaslight papers and carbon. Four parts of Solution 1 to three parts of Solution 2 give vigorous negatives suitable for platinum and bromide.



G. R. BALLANCE
SUNSET AT BORDIGHERA

JULIAN A. DIMOCK "THE LEAP OF THE TARPON"

Concerning the Joys of a Tropical Sun

JULIAN A. DIMOCK

TO the photographer Florida is fascinating and — exasperating. She offers unique opportunities to the camera worker who has learned to wait as well as labor; for Florida is the land of *manana* and cannot be hurried. Her storehouse is opened only to him who sits down before the door; and her treasures, the reward of a siege and not an assault. The photographer who travels on a schedule, spending a few, specified days within her borders, will be likely to waste his time; but the patient man who waits and waits for her prodigal moods will be rewarded, and treasures of fauna and flora of sea and sky will be showered upon him. In time there will come to him shy creatures that roam the woods by day, and, by night, he may hear the stealthy tread of the beasts that dread the light. Among the moss-draped live-oaks, the orchid-laden cypresses, and the breeze-swayed palms that lend beauty and charm to the landscapes he will find food for his camera. Changing masses of clouds produce wonderful effects during certain seasons and hours, while the sea is worth watching for its changes of color, its storms, and its water-spouts.

The camera that is always, persistently and without weariness, ready to seize upon the gifts of the gods will find in Florida a paradise. The camera that receives orders by telegraph and fills them by return mail will fail to find either joy or success in the land of Ponce de Leon.

The leap of the tarpon, whose glistening form shines like burnished silver in its setting of tropical clouds, makes the picture *de luxe* of all the world of

sports, but it comes not to-day, nor to-morrow, nor the day after; only in the fish's own good time will he leap for you, and that time is beyond the ken of mortal to foretell. Once seen, the image of it remains always, and repays hours, days, weeks and even months of waiting, although it does not always come in a way that can be appreciated. Several tarpon have jumped aboard my boat; others have come so near it that the camera was nearly ruined by the water splashed over it.

The dolphins jump as high as the average tarpon, coming out of the water rarely and without warning. As a result of three months' waiting and watching, my camera was focused on, and ready for, a dolphin as he shot into the air. For the first time in its history the shutter failed to work, and the opportunity became a "might-have-been."

The wild turkey-cock struts before his mate; the partner of his joys coyly receives his blandishments; by night they roost in the tall cypress of the Big Swamp; together, by day, they pick their way across the open prairies and, by imperceptible paths, traverse the tangled thickets. Within range of the carefully-concealed camerist they walk quietly and unafraid — when the gods will. If, on that day and in that hour, he is ready with his instrument the time of probation is forgotten in the joy of the triumph; but if, out of the days, he relaxed his vigil for the one single minute, against all rules of proportion that minute is certain to include the sixty seconds of his opportunity.

The alligator was long an integral part of every Florida river-scene, but now, under the continued attacks of the hunter of hides, he has become a rarity. Still the man that leaves the traveled trails can find the saurian and, if he happen on the reception-day of the creature, he may find him asleep on his sun-bath and obtain a picture that repays him for hours of tramping under the blistering heat of a tropical sun. Yet it needs all the persuasion of hope to get me to tramp through the long grass of the Florida prairie. I generally begin an expedition by wearing boots and leggings, and end it by carrying them and walking in rubber-soled canvas shoes. For, though it is disconcerting, on retracing your steps after the fire lighted by your guide has swept the prairie, to discover the carcasses of burned rattlesnakes on the path you have so lately trod, yet the reptile is a chance, while the chafing of the boots is a certainty. Sometimes the alligator will do the hunting and call on you. Once, as I sat in a skiff wondering where I was to look next for a subject for my camera, on glancing down I discovered an eight-foot 'gator lying quietly within reach of my hand.

On the days when Nature wields her brush according to the canons of man's art, the artist with a camera comes into his own; for, in wads of color, she slashes on the squall-clouds; black threatening masses are broken by a touch of flaky white; while streaks of flame shoot above the impending darkness. The palm-trees, of the middle distance, touched by points of light, stand out, clear cut, against the gloom-encompassed background. In the foreground, close-reefed, a sailboat scurries before the rising wind, seeking to gain the pass. What if the price of such a picture be a ducking? The man of experience has water-tight

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JULIAN A. DIMOCK

"The man who leaves the traveled trails may find the alligator asleep on his sun-bath"

"In time there will come to him shy creatures that roam the woods"

"A picturesque Seminole may be found poling his dugout in a photographically possible trail of the Everglades"

boxes for his apparatus and a system that has become proof against ordinary masses of wind-driven rain. I remember one day when, tempted by the gyrations of a tarpon, I delayed too long the start for shore. A solid wall of water struck us, shutting out the land, darkening the sky and, fortunately, stifling the wind. Two of the party were kept busy bailing, while the third tugged at the oars and pulled for the shore. The drops of water were like hail-stones, quite as hard and much colder, penetrating the light garments which we wore as if we were clothed only in smiles. My teeth were chattering more audibly than any zero weather has ever made them, when the rain stopped as suddenly as it had started. The cold was forgotten, for the waves were momentarily rising under the impact of the delayed gale and we ran on the beach through combing breakers.

When the dodo perches on the tree-tops, the great white heron stalks across the mud-flats within working range of the lens and, on the first day of every blue moon, a picturesque, bare-legged Seminole may be found poling his dugout in a photographically possible trail of the Everglades.

There *is* a blue moon, the dodo *does* pose on the palm-trees, and Nature really paints many a picture, but these things are not done for the casual wayfarer who arrives on Monday and leaves on Wednesday.

The wealth of light from a vertical sun opens possibilities unknown to the worker in northern latitudes. Reflected by the dazzling waters of the Gulf, its power is unbelievable, though in its very strength there lies a trap for the unwary; its shadow is as dark as its rays are bright, and to estimate them is impossible. On the water one may set his shutter at its highest speed, stop down his lens, cap it with a ray-filter and, even then, with a persuasive developer, coax out an image on the plate. On the land this is changed. The pine country, with its apparently shadeless trees, multiplies the needed exposure by two figures; the dense strands of cypress, the thickets of palmettoes, increase it until a cap, a tripod and a novel are necessary; while the grass-choked waters of the unshaded Everglades require only a steady hand to hold the camera. Rules are useless, experience elsewhere helps but little, and instinct, even, is unreliable as an aid to the camerist. But out of it all comes the opportunity that springs from the unknowable. On the water, with its surplus of illumination, the range is widest and the field for experiment most open. In pursuing the tarpon, the photographer may stop down his lens, adding depth to his field of focus, and counter-balance it with increased exposure until only the happening on the exact moment of the top of the fish's leap will save him from an image blurred beyond recognition. When the thing succeeds, the resultant fully-timed, sharply-defined negative gives a picture worth the risks run and becomes to the possessor a "joy forever." The experimenter can work against the light, with the light and across it, in the blaze of the sun, under the shade of the clouds, and each change *may* return an unexpected prize. On shore the unmeasured darkness of the cypress swamp may give an under-exposure that prints with a mysterious black suggestive of dungeons and deeds of darkness; the swaying of the palm-leaves may be translated into the rustling of wings; and the heat-waves rising from the caked prairie

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may be made to suggest the stewing of a witch's cauldron. Not that these things *do* happen, but they *may*, for the lottery of fate contains them all.

The chief joy of the Southland to the camera worker lies in its unexpectedness. Sometimes a brilliant outlook falls flat on a sensitive plate, while an unregarded scene develops into a picture to be treasured. Florida, with its troubles left out, would be an ideal field for the use of the camera, yet the sun that blisters the varnish on the inside of the camera, the red-hot sand-flies that occupy every atom of exposed flesh, the snakes that waylay the wanderer (ophidians, not symptoms), the light that penetrates unsuspected crevices of the camera, the interminable delays seemingly inseparable from the region — all add a charm to the retrospect that does not always attach to the events at the time.

Of photographic troubles, some are individual, some contagious, and some universal. I never had any difficulty in keeping plates, despite the damp, warm atmosphere, until I read of the troubles that pursued Mr. Chapman; but since then have suffered a good deal from the microbe that causes the deterioration of plates. I find it difficult to develop plates in Florida between the months of April and November, despite ice, hardening-solutions, tropical developers and alum fixing-baths. The film gets soft, flies walk over it while yet wet, and leave footprints at every step the size of the head of a pin, and subsequent washings in the North, in ice-cold water, lift the injured image from the glass, spoiling pet negatives. Sometimes I back my plates, but mostly I don't — it does n't fit the climate and, besides, the occasional error of "backing" the front injures the picture. The troubles of the tropics are no worse than those of the North. It is easier to stand under the hottest Florida sun, in a breathless calm, using a camera than it is to supply the human element in a winter moonlight picture or make an exposure with the thermometer at 20° below zero enlivened by a gale of wind.

Although it is all in the day's work, yet, as there are points to courting a girl in the land of the midnight sun, so there are joys in using a camera in the land of "palm and Southern pine."

JULIAN A. DIMOCK "Changing masses of clouds produce wonderful effects during certain seasons"

Hints About Summer Work

F. J. MORTIMER, F. R. P. S.

THERE are two seasons of the year which are of special significance to photographers from a chemical point of view. One of these seasons is upon us now, and the other occurs when the warm weather is leaving us. At the moment of writing the thermometer stands at 70° F. and it is long past sunset. The chief characteristic and most constant attribute of the weather in these isles is its uncertainty. To-morrow, therefore, the roadways may be deep in snow, and Jack Frost will, maybe, trace us a few of his inimitable designs upon our window-panes in the morning.

Topical though the subject of the weather must always be, it is the general tendency of the temperature to rise at this time of the year that should claim the more immediate attention of photographers.

Temperature has a great influence on photographic work — far more than the average amateur would at first think — and the effect of temperature on photographic results should be studied by all who wish to attain to perfect technique.

Most chemical reactions are immediately affected by a rise in temperature. Many chemicals react only when raised to a certain heat, and warmth assists in nearly all physico-chemical actions.

Since the introduction on such an extensive scale of red-sensitive plates, the question of heat has assumed an even greater importance, as the red end of the spectrum gradually fades off into heat rays, and red rays actually produce warmth. Consequently, red-sensitive and panchromatic plates are inclined to be sensitive to heat, and thus temperature may even fog them without the effect of light at all.

Let us consider, however, the effect of heat on the strictly chemical action of development. About this time of year, and as the warm weather approaches, it occurs to those who have not studied this question that their developer is unaccountably becoming much more energetic, or that the value of the light is greater than they had bargained for. But temperature is the chief factor in these apparent changes. Development takes place at a rate almost proportional to the temperature, and Mr. Ferguson not very long ago worked out a co-efficient by means of which the time of development at one temperature as compared with another could be calculated with precision. Similarly, Messrs. Lumière have drawn up a table showing the effect of temperature on the time of development of the Autochrome plate, and the normal time of two and a half minutes becomes as little as one and a half when the temperature of the developer rises to a certain point — a point easily reached in a stuffy and badly ventilated dark-room in warm weather.

Developers kept in the dark-room will naturally rise to the temperature of that room, and the tap-water also rises at this time of year. Development is therefore considerably quicker than in cold weather, and since the change in

G. R. BALLANCE
WAYSIDE CROSS NEAR ZINAL

warmth is usually so pronounced in May, and sometimes even before, it is clear that attention should be paid to the matter.

Sudden variations in temperature are trying to all films of colloid material on a rigid or semi-rigid support, a fact thoroughly recognized by the general photographic practitioner; but the two superimposed films of the Autochrome plates become especially sensitive to troubles arising from the use of solutions or water that vary in temperature. Hence, from the point of view of avoiding trouble, it is as well to allow time for all materials to acquire approximately the same temperature, as, for example, by preparing everything over-night, and drawing from the main a sufficient quantity of water for use the next day. A contributor, whose workroom is a subterranean vault, tells us that when he does this he is never troubled with frilling; but it is not every one who can realize such ideal conditions for ensuring even temperature.

Naturally enough, warm weather is of some importance in connection with time development. The first appearance of the image will take place far quicker than in cold weather. This, then, must not be taken as a sign of over-exposure; it is merely a question of augmented action due to heat. Stand development, similarly, which has been timed by the hour or half-hour, must be watched, and fresh times given as the days grow hotter, otherwise over-development will result.

Frilling is, nowadays, fortunately, not a very common complaint, but it arises most readily from allowing plates to stand about too long a time in dishes when the water is rather warm. Those who use many Autochrome plates will possibly find the frilling trouble return, and if so, will be wise to return to the edging of the film with beeswax and resin, or, failing this, with india-rubber solution.

Blistering is most usually caused, both in papers and plates, from transferring them from one solution to another at a different temperature. As an example, we may take the case of a plate developed in a warm solution, and then placed in a freshly-made fixing-bath. Hypo in dissolving causes a considerable lowering of temperature, and fresh fixing-solution should therefore be given sufficient time to get back to the temperature of the room; or it may be prepared with warm water, but in this case its temperature should be measured with a thermometer before use, and should not be above 70° F.

Toning takes place more rapidly in the warm weather, and the time of combined toning and fixing with a combined bath may be reduced from fifteen minutes — the winter time — to perhaps twelve or ten. Even seven minutes will suffice in the hottest weather.

A word may be said relative to very rapid or "ultra-rapid" plates. These are best developed at a moderate temperature, and it will be found to pay, as a general rule, to cool the solution, if necessary, to an average of 65° F. It is better to prolong development, or slightly force it with alkali at a low temperature, than to develop a plate at too high a temperature.— *The Amateur Photographer and Photographic News.*

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Our Illustrations

THE EDITORS

OUR frontispiece, by J. C. Strauss of St Louis, is a remarkable likeness and something of a character study, besides. It shows Stein, the man, in an attitude frequently assumed by this versatile, genial artist. To apply a few art-principles, one will see at a glance that superfluous details have been subordinated to the face, which holds attention as the chief point of interest. The lines of the coat and arm all converge toward it; even the hand, which, it must be admitted, attracts the attention momentarily and is daringly placed in the picture-space, is so much a part of the characterization that it draws attention to the face rather than detracts from it. The idea is a bold one, and in less skilful hands would have resulted in distortion, but here it is distinctly pleasing in its originality. The dark, isolating background is also conducive to strength in that it strongly emphasizes the lines of the head.

"Street Scene, Tivoli," is one of those bits of every-day life which, because of the setting and the manner of doing things abroad, seem so quaint and picturesque, even though commonplace. The composition is excellent; the leading lines are well located, but from the standpoint of true pictorial effect the arch and building back of it are in too sharp focus — definition being more noticeable here than in the case of the pack-animals. It is interesting to note the difference between the white walls in sunlight and in shadow. Data: October, 11 A.M., bright light; Goerz lens, Series 1 B, 7-inch focus, F 4.8; $\frac{1}{100}$ second; Imperial Flashlight plate; pyro-soda developer; CC Platinotype print.

"Scene on the Col de Balme," like other pictures by Mr. Ballance, is notable for the correct rendering of values seen on the distant mountain-peaks of the Mt. Blanc range — and on the backs of the cattle. Although the animals seem at first glance to be of chief interest, more careful examination seems to convey the impression that they have been cleverly used for their perspective value in accentuating the down-hill effect back of them, thus increasing the majesty of the mountains, which appear to dominate the picture, after all. Down-hill effects are so entirely the result of suggestion and association that they are difficult to achieve, but we find here an excellent example. The cattle are placed in such a way as to suggest the well-known principle of repetition, always so conducive to the feeling of calm and quiet. It seems very appropriate here, for where is one so conscious of these sentiments as on the sides of some great mountain? Data: August at noon, bright light; Goerz lens, Series III, $8\frac{1}{4}$-inch focus, F 11; $\frac{1}{100}$ second; Imperial Flashlight plate; pyro-soda developer; CC Platinotype print.

The term "pictorial record" exactly describes "San Vigilio, Lake Garda." In composition it could not be better, and the decorative silhouette effect of the trees against the sky creates an air of mystery which arouses the imagination and at the same time serves to accentuate the building and throw its outlines into relief. The absence of human life to offer a counter-attraction is, in a picture of

G. R. BALLANCE — ANCIENT CHURCH NEAR SALA

this particular nature, a gain in strength. Data: May, 3 P.M., cloudy; Goerz lens, Series III, 8¼-inch focus, F 8; 10 times light-filter; 1/10 second; Ilford Slow Iso plate; pyro-soda developer; CC Platinotype print.

Of the two marines by William S. Davis, "Surf" is the better. Its realism is forceful and its beauty very inviting these warm days. Although the sky is in harmony with the scene and holds some share of our attention, the eye cannot leave the breaking wave for long. This is the master-stroke of the picture, for by a moderate exposure both the woolly and frozen appearances have been avoided and there is some suggestion of motion, so important in work of this kind. "A Stormy Sunset" is one of those startling skies which we have all occasionally admired. As shown here the foreground has not been properly subordinated and the result is a conflict of interests. Likewise the water is in too high a key and lacks realism, besides being disturbing to the eye. Data on page 59.

"Edelweiss and Silene" is a record pure and simple, although the truth to nature in such pictures always gives them a certain artistic value. The blossoms are well placed, and were the silene blossoms at the left a little lower in tone the effect would be more pleasing. There is, perhaps, a loss of texture here, but it is to be expected when working in so small a size. Data: July, 4 P.M., bright light; Goerz lens, Series III, 8¼-inch focus, F 22; 30 seconds; Ilford Slow Iso plate; pyro-soda developer; CC Platinotype print.

In "Lake Scene near Tremezzo" we find one of those delightful pictures of a summer's day — very pretty while we look at it, but lacking those potent qualities of sentiment and mystery which appeal to the emotions and fix the scene in one's memory. It is a good example of absence of foreground with the interest centered in the middle distance and sky. The latter, however, is sufficiently subordinate not to dominate the scene, and the group of buildings by its very position holds our attention. The fact that the tower breaks the horizon-line and pierces the sky is also an aid toward this end. Data: May at noon, bright light; Goerz lens, Series III, $8\frac{1}{4}$-inch focus, F 8; 10 times light-filter; $\frac{1}{10}$ second; Ilford Slow Iso plate; pyro-soda developer; CC Platinotype print.

Although more in the nature of a record than an art work, "The Eiger at Sunrise" is a remarkable photograph, well spaced and in good balance. From a technical standpoint it is a masterpiece, and its great value as an authentic and impressive record will be realized by all who have been so fortunate as to see this wonderful peak under similar conditions. Data: June, 7 A.M., bright light; front half Goerz lens, Series III, F 22; 10 times light-filter; 1 second; Ilford Slow Iso plate; pyro-soda developer; CC Platinotype.

The principal theme of "Olive Groves near Sasso" is the effect of sunlight which pervades the scene, and the print itself is an eloquent refutation of the mistaken idea that violent contrasts suggest intense light. The scale of gradation here is comparatively short, and in the original print there is not a spot that can be called white paper. Light in a picture is produced by the addition of shade; and although the highest lights may be considerably tinted or low in tone, they are made to seem brilliant by dark opposition. Although the large tree toward the right acts as a balance for its fellow at the extreme left, yet it is lighter and, therefore, properly subordinate. This is a principle which it is well to remember. There is an air of mystery about this picture which is due partly to the unusual lighting and partly to the fact that the prominent tree-trunks and the lines of the path all tend in one direction and one cannot restrain the desire to know what is beyond the turning-point. Thus we have exemplified another art-principle which often greatly enhances the interest of a picture. Data: May, 4 P.M., bright light; Goerz lens, Series III, $8\frac{1}{4}$-inch focus, F 8; 2 seconds; Ilford Slow Iso plate; pyro-soda developer; CC Platinotype print.

"Sunset at Bordighera" is well named, for all our interest is in the sky, which has been made still more important by the low horizon-line. The position of this line, aided by the long horizontal shore-line, also tells of distance, peace, and calm. One can almost hear the waves breaking gently on the beach. The sky could hardly be better. Such clouds and values as these are obtained only by the use of corrected plates and a light-filter. Data: May, 7 P.M., bright light; Goerz lens, Series III, $8\frac{1}{4}$-inch focus, F 8; 10 times light-filter; $\frac{1}{20}$ second; Ilford Slow Iso plate; pyro-soda developer; CC Platinotype print.

The illustrations accompanying the article by Mr. Dimock are so obviously records that it would be unfair to consider them along strict art-lines, for they were not made with the pictorial aim in view. Mr. Dimock is now in the Ever-

glades of Florida, where full data regarding the pictures are not available, but he advises us that with the exception of "The Leap of the Tarpon" all were made on Cramer Medium Iso plates with an Ideal ray-filter. The lens used was a 12-inch Voigtländer Collinear, Series II, No. 6, fitted to a Reflex camera. Cramer's pyro-acetone developer was used, and the prints were made on Kresko.

It is interesting to consider how much less the cross in "Wayside Cross near Zinal" would count for as an attraction were it located elsewhere in the picture-space. In its present position it attracts the eye by opposition to the light and because it breaks the long line of the mountain-crests. Were it placed considerably lower it would be swallowed by the shadow of the mountains, and its force would be lost. Seldom are three distinct planes more evident than in this picture, and this very fact seems to bring all the objects of importance in the foreground still nearer. This illusion is all the greater because of the high horizon, which always creates the idea of nearness, especially when practically but one plane is shown. The posing of the figures, as well as the slow-moving clouds, are important factors in investing the composition with a repose quite in harmony with any religious motive. It is possible, perhaps, that the scene would have gained in sentiment and impressiveness toward evening, when more breadth could have been obtained with less insistent detail in the foreground. Data: August, 3 P.M., bright light; Goerz lens, Series III, 8¼-inch focus, F 8; ½ second; Ilford Slow Iso plate; pyro-soda developer; CC Platinotype print.

"Ancient Church near Sala" hardly seems an appropriate title for the picture so designated. This is probably because unity is lacking, the figures having obviously no connection with the church itself. Moreover, they are by position, focus and actual interest of chief importance, in spite of the strong leading line of the wall, which is directed toward the church. Here we have an excellent example of the fact that human interest has such a direct appeal that when not intended to hold the attention it should be subordinated by position, distance or focus. It may be recorded as practically impossible to make a building in the middle distance the chief object of interest when figures are strongly placed in the foreground. Had the picture been called "Scene near Sala" all would have been well. Verily, "What's in a name?" The play of sunlight and shadow in this picture is one of its chief charms, and the three planes of distance are admirably shown. Data: May at noon, bright light; Goerz lens, Series III, 8¼-inch focus, F 8; $\frac{1}{100}$ second; Imperial Flashlight plate; pyro-soda developer; CC Platinotype.

Perhaps in every way the most satisfying print of this collection is "In the Gorge at Tivoli." It is almost a scene of veritable enchantment, and being taken through a mist and against the sun has added materially to the idea. It was a difficult thing to do, but the work has been handled with consummate skill and the delicacy of the chemical effect is wonderfully beautiful. The composition is also superb and extremely decorative. Data: October, 11 A.M., bright light; Goerz lens, Series III, 8¼-inch focus, F 11; 2 seconds; Ilford Slow Iso plate; pyro-soda developer; CC Platinotype print.

EDITORIAL

A Word About Gum

MR. T. BEDDING, F.R.P.S., in *Wilson's Magazine*, very breezily prophesies the speedy death of gum-bichromate printing. We heartily agree with this writer that the process should be practised only by those who have an art training, or a decided natural talent. We have stated, repeatedly, in these pages, that gum has not been the vogue in this country because our workers, as a class, are not capable draftsmen. This is not a fault of theirs, for we are not a nation of artists, although American art takes a high position in the art world to-day. Mr. Bedding is right in holding that gum is not photography, although photography is its base. It will be noted, though, that gumists do not claim that their process is photography, so why use harsh language in criticizing them?

The Ticket-System

AMONG the means adopted by many photographers to secure business, none appears to yield larger returns than the well-known ticket-system. In numerous cases, however, this method has come to be recognized as nothing less than a distinct, fraudulent practice, in that the agent does not hesitate to overstate the privileges to which the purchaser of a ticket is entitled. This naturally leads to trouble. The customer considers himself defrauded, for the photographer grants only what the ticket stipulates, and *not* what has been promised by his over-zealous representative. This practice of enticing unsuspecting persons into photograph-parlors under false representations is reprehensible and, if continued, is likely to be brought to the attention of the authorities. It is hoped, therefore, that this question may form the subject of discussion at the photographers' conventions this summer. It is for them to take the initiative in a matter of their own creation and entirely under their control. Like other vocations, the photographic profession is not without a certain per cent of black sheep which infest every large city. Boston, too, has its quota — concerns which do not shrink from bribing schoolboys in an effort to acquire the business of making class photographs; or from employing unscrupulous, irresponsible individuals to sell their discount tickets. For this reason the ticket-system has got into ill-repute and respectable photographers prefer to abandon the method altogether. It is obviously to the advantage of photographers, as business-men, to take action in so important a matter and try to correct an evil that has brought portrait-photography into disrepute among many honest people. Practitioners who sanction or encourage the deceitful practices referred to are a discredit to their profession, which is a noble one, and the sooner they are weeded out or properly dealt with the better for photography and the public.

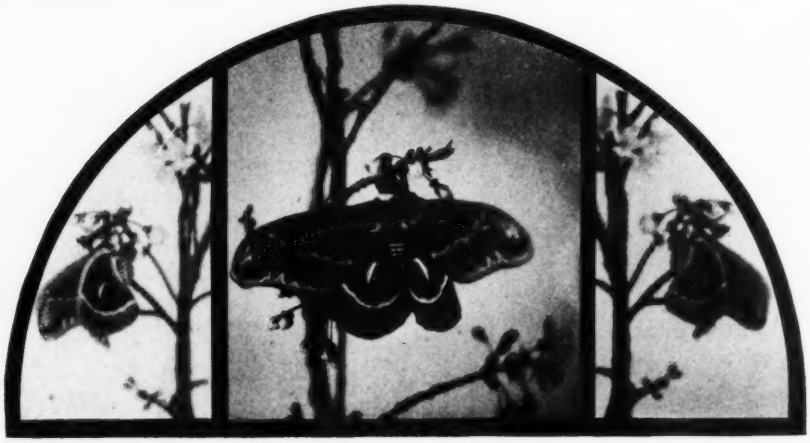
G. R. BALLANCE

IN THE GORGE AT TIVOLI

THE ROUND ROBIN GUILD

Conducted by ELIZABETH FLINT WADE

A department especially designed for the amateur photographer and the beginner, in which information, advice and criticism will be freely given. Membership may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston, Mass.



MRS. CHARLES S. HAYDEN — MOTHS AND BLOSSOMS

SECOND PRIZE — DECORATIVE PHOTOGRAPHY

In the months of August and September come the fulfilment of the year's desire. The tall wheat, colored golden by the August suns, hangs heavy-headed, ready for the reaping. The gardens are losing in a measure their freshness, and the bees go hurrying about from flower to flower to complete their winter's store of honey, knowing that soon come the days of frost and cold. The apple-boughs bend more and more each day with their weight of ripening fruit, the peaches are catching and storing sweetness from the glowing sunshine, and the pears are dropping to the ground yellow and juicy.

Everywhere one looks he sees the evidence that Nature has not wasted her summer — that each day has been a day of progress. When one sees Nature thus pursuing the round of the year — never hasting, never resting — but bringing everything to pass in due season, one wonders why life cannot be lived on like principles. But alas, we are possessed by the demon of hurry. We hurry, and thus exhaust our nervous energy, and then the body rebels and we require rest. Surely August is the very best month of all to rest in, with its calm, languorous days, its still and starry nights.

Now the motto of the Guilders is that they never rest without their cameras, so those who are using August for their rest month are enjoying the companionship of their cameras, and storing up picture-notes for future use. Many of our members work with an object in view, while some have no specialty in which they are interested, but simply desire to get artistic and interesting pictures. Each one will bring home negatives some of which will be very good and some may be very bad. Those negatives which are really bad — which have no special pictorial value or are poor negatives technically — should be destroyed. It is rather a wrench to part with a negative, however bad, but once done one is glad it is done. The next step is to go over the remaining negatives and put them in shape for printing.

TREATING DEFECTIVE NEGATIVES

A PERFECT negative is the rare exception, never the rule. Most negatives have defects of some kind — pinholes, scratches, stains, etc., and in order to make a satisfactory print these defects must be removed or remedied in some way.

In the early days of photography, portraits, for instance, were made with almost microscopical sharpness, and blemishes on the face such as freckles or moles were brought into

startling prominence, though in the individual they may have been scarcely noticeable. This led to "retouching" the negative, and the enthusiastic retoucher not only obliterated all these defects, but the lines which gave character to the face, so that the finished print was almost "without spot or blemish."

The present-day photographer uses a softer focus and confines his retouching for the most part to the remedying of defects in the film, softening too heavy shadows, or toning down too strong high-lights.

The pinholes, scratches, etc., which appear in one's negatives may be very easily retouched so as to be unnoticeable in the finished prints. The materials needed are very moderate in price and last for a long, long time. They consist of two lead-pencils — the Koh-i-noor 5B's, the Hardmuth, Negro, No. 1; two camel's-hair brushes, one very fine and slender, the other of medium size; a cake of lampblack moist color; a cake of opaque, and a little finely-powdered pumice-stone. In addition to these a sheet or two of onion-skin paper and a Faber blue pencil for marking on glass and china will be found very useful.

For small pinholes and scratches sift a little powdered pumice-stone on the places and rub over with the end of the finger in a rotary movement. This roughens the film and gives a "tooth" for the pencil to work on. Remove the superfluous dust with a piece of surgeon's cotton. Sharpen the pencils to a needle-point, leaving at least half an inch of lead exposed. As the point grows dull in using sharpen it by rubbing on a piece of emery-paper which, for convenience, is tacked to a small block of wood. The point of the pencil is placed at the center of the hole and turned gently, just enough to make the mark of the lead of the same degree of density as the surrounding film. Care must be taken that the pencil does not mark the film at the edge of the pinhole, as that would produce a white ring on the print. The object of the needle-point to the pencil is to have it touch only the small spot necessary to be filled. In case the attempt is not successful, moisten a bit of surgeon's cotton in alcohol and sponge off the marks and try again. One can buy or make retouching-varnish, but the pumice-stone is more satisfactory, and easily removed if it becomes necessary to repeat the operation.

If one has a tear in the film or the hole is too large to be filled easily by means of the pencil, then use the brush and water-color. Moisten the finest brush, bring the end to a fine point and touch the spot directly in the center, leaving a small dab of paint. Rinse the color from the brush, bring it again to a point and work the paint carefully toward the edges, observing that it comes only to the edge of the film. Let the paint dry; then if not dense enough apply the paint a second time in the same way. If not successful wipe off with alcohol and, when the film is dry, go over it again. Scratches on the film may be filled by rubbing the places with powdered pumice-stone, then, using the needle-pointed pencil, follow the scratch, touching very lightly. A little practice soon makes one expert in this sort of work.

If the shadows are too dense in a negative use first the pumice-stone, then take the Negro pencil, which is of very soft lead and almost makes a smudge, and touch up the shadows; then blend the marks with the point of the finger or with a crayon-stump. In portrait-work the freckles are easily touched out by using the needle-pointed pencil.

Sometimes one has a portrait negative with an undesirable background. This can be blocked out entirely by painting the glass side of the plate, where necessary, with the opaque paint, and it may be veiled and rendered indistinct by putting a light wash of lampblack on the glass side of the negative.

With the blue pencil one can work directly on the glass side of the negative, as the pencil marks readily on glass, making an even, continuous mark. One can do much toward improving a negative by working with the blue pencil on the glass side of the negative. There is a certain freedom in this method, for one has no fear of spoiling the negative.

Onion-skin paper may be applied to the glass side of the negative by first moistening the paper, laying it on the back of the negative, smoothing out any possible wrinkles or air-bubbles and then pasting slightly at both ends. When dry, one can work on the paper, blending the pencil-marks with a crayon-stump, and bring a negative of harsh contrasts up to an evenly-balanced picture.

Another defect of negatives is the staining of the film from one cause or another. The most common is the silver stain. It is removed by placing the negative in a solution made of iodide of potassium, one part, and water, twenty parts. The plate should lie in the solution till every trace of the stain is removed. If the stain is a small one it can be removed by local treatment. To an ounce of water add ten grains of iodine and forty grains of iodide of potassium. When dissolved add a few drops of hypo solution of a strength of one to three and, when perfectly clear, dip a piece of chamois-skin in the liquid and rub the stain gently until it disappears. Wash well and dry.

Developer stains sometimes occur, especially with pyro, when the developing is much prolonged. To remove, make a solution of sulphate of iron, one and one-half ounces; sulphuric acid, one ounce; powdered alum, one ounce; water, ten ounces. This bath must be made twenty-four hours before use, to allow it to ripen. As soon as the negative is thoroughly fixed, rinse well and place in this bath. The stains will fade out in about ten minutes, or even sooner. If a negative has been washed and dried it must be well soaked before putting in the bath, and it will take longer to remove the stains. This bath may be used three or four times, but after that should be thrown away.

THIRD PRIZE DECORATIVE PHOTOGRAPHY

PAUL FOURNIER

COVER-DESIGN

Monthly Competitions

Closing the last day of every month.

Address all prints for competition to PHOTO-ERA, *The Round Robin Guild Competition, 383 Boylston Street, Boston, Mass.*

PRIZES

First Prize: Value $10.00.
Second Prize: Value $ 5.00.
Third Prize: Value $ 2.50.

Honorable Mention: Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention, and will be awarded a year's subscription to PHOTO-ERA, *to be presented by the recipient to one of his friends not already a subscriber.*

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

RULES

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium, mounted or unmounted, may be entered, but they must represent the unaided work of the competitor.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. *A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.*

W. AND G. PARRISH

DECORATIVE PANEL

FIRST PRIZE — DECORATIVE PHOTOGRAPHY

5. *Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

SUBJECTS FOR COMPETITION

June —"Pinhole Pictures." Closes July 31.
July —"Harbor Scenes." Closes August 31.
August —"Flowers." Closes September 30.
September —"Artistic Mounting." Closes October 31.
October —"Children." Closes November 30.
November —"Reflections." Closes December 31.
December —"Foreground Studies." Closes January 31.
January —"Photographs of News Events." Closes February 28.
February —"Winter Landscapes." Closes March 31.
March —"Historic Pictures." Closes April 30.

AWARDS — DECORATIVE PHOTOGRAPHY

First Prize: W. and G. Parrish.
Second Prize: Mrs. Charles S. Hayden.
Third Prize: Paul Fournier.
Honorable Mention: Jane Reece, Mrs. Leonard N. Howe, K. Theodor Krantz, Wm. S. Davis, George C. Elmberger, Wm. A. Rheinheimer.

As was explained in our April number, the intent of this competition was to show how photographs could be made use of in such forms of decoration as book-cover designs, ornamental borders, head and tail pieces for printed matter, etc. Much, of course, depended upon the treatment and mounting of the print, and it was necessary in doing this to suggest some possible application for the picture submitted. Several excellent photographs were submitted which possessed great possibilities, but as no decorative treatment had been given them or any idea for utilizing them suggested, they could hardly be considered eligible. Of all the prints submitted the "Decorative Panel" by W. and G. Parrish certainly shows the greatest amount of thought and effort. The figures are religious and treated in the Byzantine style, which is best suited to mural decoration, although it might be appropriately adapted to other like uses.

What seems to be a circular stained-glass window in the background was in reality a shape cut from wrapping-paper and pasted on an ordinary window. All light was excluded except that which came through the holes behind the figure. An exposure of fifteen seconds was given on Cramer Inst. Iso plates. The prints are on Aristo Carbon Sepia mounted first on a light underlay and finally on a large, dark red-brown mount which harmonizes with the darkest tones of the prints.

"Moths and Blossoms," by Mrs. Charles S. Hayden, is, from a purely decorative standpoint, perhaps, more interesting to the average person than the first-prize print. It is the sort of picture which can be used successfully as part of a cover-design, head-piece or title-page caption. If printed in four colors or enlarged in colors on glass as a decorative transparency or small window its beauty would be greatly enhanced. Here, more than in any other print submitted, we find an approach to that important attribute of the best decorative work which requires that while the parts should be complete in themselves, there should be unity of the whole effect.

The photographs composing this decorative scheme were made in May, by a north window. A Steinheil portrait-lens was used with no stop, the exposure being three seconds on Seed 26 plates. These were developed with metol-hydro, and the prints are on W. & C. Platinotype paper toned brown with hot mercury.

"Cover-design," by Paul Fournier, is just what its name implies. The treatment is excellent, and the only points to criticize are that the picture itself is not especially attractive and the side panels carry none of the interest and could be removed without affecting any important ideas conveyed. The data are as follows: April, 5 P.M., cloudy; Plantograph lens, 6-inch focus, full opening; $\frac{1}{5}$ second, Seed 27 plate; metol developer; sepia platinum print.

"Daisies," by Jane Reece, a dainty bit of vignetting, is simple and in every way pleasing. It could be utilized in very many schemes of decoration for a variety of purposes. The exposure, made on a Hammer plate, was half a minute by a window in May, the lens working at F/8. A pyro developer was used, and the print is on developing-paper.

There are several other prints of merit which will probably be used to embellish this department in future issues, and they will be mentioned in detail when used.

Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, *321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.*

R. FREDERIC HUNT.— The staining of your platinum prints is perhaps due to the yellow color of the hydrochloric acid which you used for clearing the prints. Hydrochloric acid contains more or less iron, its presence being shown by the yellow color of the liquid. Ask for C. P.

(chemically pure) acid, which is perfectly white and will not stain your prints.

E. N.— It is very gratifying to the editors that you find PHOTO-ERA so helpful, and especially the Round Robin Guild Department. I would not advise you to attempt backing plates. Use non-halation plates and any reflection will be avoided. Film seldom if ever shows any reflection, and plates do so seldom that it is not worth while to try backing, as it is really quite a bit of trouble, and one must have a very safe light or run the risk of fogging the plates or having them light-struck. You will find in the December number of PHOTO-ERA, in the Guild Department, an article on lantern-slide making which will give you the details you desire and which are too long to print among the "answers." The number will be sent you from this office, in case you have no copy.

C. C. D.— A gram is equal to 15½ grains. If your formula calls for grams and you wish to reduce it to grains multiply the number of grams by 15½ and it will give you the number of grains correctly. You can get copies of the metric system, and it is a good idea to familiarize one's self with it. Any druggist will transpose your formula for you if you do not wish to figure it out yourself.

BERTHA B.— The reason why you cannot get a satisfactory print from your negative is because it is too thin. The light passes through all parts of the negative quickly and almost evenly and gives a print with no gradation of lights and shadows, and one which tones an ugly gray. Use a colored glass over the negative when printing, or a ground-glass. A bluish-green glass of light shade will be a good color to use. The glass retards the printing and the resulting print is much improved. Carry the development a little farther in your negatives and you will have less trouble in printing. A negative should have a certain degree of density in order to get good, plucky prints.

NELSON H.— The meaning of orthochromatic is "right color." It is from two Greek words. Plates bearing this name have been sensitized with an emulsion which is supposed to give the right color or tone value to the objects photographed.

E. M. O.— If the print cannot be duplicated make a new negative from the print, and if not dense enough intensify it. Sometimes a negative from a faded print surprises one with the amount of detail which the camera has brought out. If the print is unmounted make a paper negative from it, printing as if it were a plate. Make the exposure on gaslight paper. You are quite sure to get a good print in this way, and probably it will be superior to the original.

Print-Criticism

Address all prints for criticism, enclosing return-postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, *321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

"THE FIRST ROBIN," D. C. S.— This is a picture of four children gazing intently up into a tree, the spring foliage of which is just showing. Though the robin is not in evidence, the interest on the faces of the children shows that there is something very attractive in the tree which claims their undivided attention. This is a very happy pose, and an unusual one, but the fact probably is that the children were not posed at all, hence the charm of the picture, which lies in the unconsciousness of the subjects that such a thing as a camera is within sight.

JANE REECE — DAISIES

THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department Address all such communications to Phil M. Riley, 383 Boylston Street, Boston, Mass.

PRINTING WITHOUT LIGHT OR DARK-ROOM

FAITHFUL prints of almost any desired color, direct by contact from a negative on either glass or paper, without the agency of light or necessity for a dark-room, are some of the advantages of the Donisthorpe process recently introduced in England. It has an origin similar to the dye-absorption process well known in three-color work, upon which Pinatype depends, and turns upon the quantity of dye which a gelatine film will absorb.

The negative to be printed is immersed for five minutes in what is practically a vanadium toning-bath. This intensifies it a little and turns it to a bluish-green. In so doing a deposit is made on the image which must be absorbed by the gelatine. This hardens or blocks up the gelatine and decreases its power to absorb moisture in proportion to the opacity of the negative in its various parts. Later, when the dye is applied, it will be considerably absorbed where there has been but little toning, and so on in proportion.

The account in *Photography* is so succinct that we quote it:

"When toned, the negative is rinsed for two minutes and placed in a strong dye solution, also, for five minutes. A piece of gelatinized paper is soaked in water for two minutes, and then the negative, being taken out of the dye solution and rinsed, is laid face upwards on a piece of glass, the paper is laid face downwards on it, and the two are squeegeed into contact. After remaining in contact for a few minutes, the paper is gently pulled off, dipped for a moment in methylated spirit, blotted off, and is a finished print, which in five minutes is dry. The negative, after the paper is stripped from it, is put back into the dye for half a minute or so, and is then ready to have a fresh piece of paper squeegeed to it, and so on. A single treatment in the 'hardening'-bath fits it for an indefinitely large number of prints to be made from it.

THE PROCESS IS COMPLETE IN THREE STAGES

"Such is the Donisthorpe process. It will be seen that it divides itself into three stages — (1) the first or hardening-bath, (2) dyeing, (3) transferring — and we may conveniently refer to it under those three headings.

THE FIRST OR HARDENING-BATH

"The action of this solution is a very curious one. It turns the negative to a bright blue color, which changes to a bluish green when it is washed under the tap. This action seems to intensify the negative a little, but should not interferes with it use subsequently for ordinary printing, although it must be confessed it alters its appearance a great deal. The negatives which yield the best results are thin ones, without the slightest trace of fog or veil. A negative which is too thin to print at all satisfactorily on P. O. P. suits the process admirably. The negative must be finished and dried before being put into the vanadium solution, the action of which should be allowed to go on for five minutes. When the negative is taken out and washed, its film, which the first bath has rendered very hard and strong, may be rubbed well with the hand to remove any possible deposit on it.

DYEING THE NEGATIVE

"The treatment described in the previous paragraph does for all time. Only once need the negative be submitted to the hardening-bath. Thereafter it is only necessary to immerse it in the dye, and to squeegee the paper upon it. It may be dried and put away when a sufficient number of prints have been made, and when more are wanted it may be rewetted and the work started again.

THE TIME OF DYEING

"The time it is left in the dye-bath depends on the particular color used, and whether the plate has been dyed before. If it has not, a longer time than otherwise must be given. The dye is taken up by the negative in the parts which originally were the most transparent, so that a fully-dyed negative no longer looks a negative but actually a positive — what were the clearest parts are now the most opaque. When fully dyed the negative is taken out, rinsed under the tap, and its surface rubbed over to remove any sediment there may be.

TRANSFERRING THE PICTURE

"The last stage is to transfer the picture, which consists of dye absorbed by the negative, to the paper. This, like the preceding operations, is extremely simple. The paper, which is merely a plain white paper coated with soft gelatine, is soaked for a couple of minutes in clean cold water, and the negative is then laid face upwards and the two are squeegeed gently into contact and left in contact for about five minutes. The time of contact varies according to the negative and to the dye, but five minutes is the average. It is then gently stripped off.

STRIPPING OFF THE PRINT

"There is a tendency for the first print that is made from a negative to adhere to it, and it may even do so to the extent of tearing in the

stripping-process. If it does, however, no harm results, except the loss of that print. The negative is placed in water, and any pieces of gelatine that may be adhering to it are rubbed off with the fingers. The negative is re-dyed, and no further trouble is then experienced.

Securing Uniform Prints

"Some negatives will yield two or more prints with a single dyeing, but the successive prints get weaker in contrast, and if a number of perfectly uniform prints are required the negative should be put back into the dye for half a minute to two minutes after each print is taken.

A Curious Result

"The whole of the operation can be performed in any light, or in none, for that matter, as light plays no part in the production of the prints. A very curious result follows from this. There is no need whatever for the negative to be on a transparent or translucent support, since we are not wanting to print through it. Accordingly the Donisthorpe Company is making a special roll film for the process, which, instead of having celluloid or white paper as its support, has black paper only. The black paper could be used just as it is, but it is found more convenient to give the side that is to carry the emulsion a white coating first, so that when the negative on it is fixed out it shall be visible."

NOTES ON AUTOCHROME WORK

One of the most zealous and successful users of Autochrome plates in Boston is Dr. Malcolm D. Miller, who has shown us several transparencies the technical and pictorial quality of which amply justifies his enthusiasm. As an aid to those who are about to take up the Autochrome process he makes the following suggestions:

Exposure

The method of determining exposure which has given me accurate results is as follows: first calculate exposure for a fast plate, such as Cramer Crown or Stanley, and then multiply by one hundred, which gives the correct exposure for the Autochrome Similarly, for portraits indoors, one hundred times the exposure which experience showed was necessary under certain conditions gave perfect timing; e. g., with late afternoon sunlight in the room but not on the sitter, one minute for a lady in light blue on a light green sofa proved correct; and one and one-half minutes for a subject wearing a rose-colored gown with a dark mahogany desk in the background was also correct; both at F 8.

For dark foregrounds an increased exposure is needed, calculating for "dark objects in which detail is required" with the "Cheape" meter. In this case the sky is lost, but I expect to overcome the defect by means of a slotted sky-shade or cap on the lens.

Lighting

It is important, in the case of indoor subjects, to have the shadow side well illuminated. A lighting which would be too flat for a black-and-white is about right for a color-picture.

Stops

If there is any wind stirring, a medium or small aperture is necessary to stop the motion of the trees; e. g., F 22.

Temperature

Use the thermometer, and mix the developer in hot weather so that when poured on it will be about 60° F. Temperature over 65° causes loss of half-tones.

Frilling

If all the solutions after the first developer are cooled in running water frilling should not appear. It is, notwithstanding, advisable to use one tray throughout until ready for intensification, as in this way one avoids starting frilling by picking the plate out by its edges. During intensification examine the plate frequently, and always judge the density by holding the plate up to the sky or clouds. Often fifteen to thirty seconds is enough for a correctly-timed plate. In rinsing, leave the plate in the tray and let a gentle stream from the tap flow on it near the middle.

Varnishing

Double the quantity of benzol (benzene, $C_6 H_6$) to the gum dammar makes a quicker drying varnish than the published formula. Always varnish before handling the plate much, as there is danger that the extraordinarily thin film will chip off if not protected.

HYDROQUINONE-RODINAL

There are many points in favor of combination developers, which have already been emphasized in this magazine. Each developing-agent produces a different sort of negative and goes about its work in a slightly different way. Speaking in general terms, however, there are two classes of developers, known as hard-working and soft-working; in other words, those which tend toward contrast and those which produce softness. If the good qualities of both can be successfully combined it is usually advantageous in most ordinary work. Hydroquinone-rodinal combines the density and snap of the former with the softness and detail-giving qualities of the latter, and is, therefore, especially useful for snap-shot work.

Solution A

Hydroquinone	80 grains
Rodinal (1 in 10 solution)	320 drops
Sodium sulphite crystals	400 grains
Water to	9 ounces

Solution B

Potassium carbonate crystals	240 grains
Water to	9 ounces

A developer put up as indicated above gives clean negatives without stain, and is cheap because it can be used over and over again. For ordinary work Solution A should be used alone, but the addition of a few drops of Solution B will quicken development. For focal-plane work or under-exposures use equal parts of Solutions A and B.

XUM

NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions are solicited for publication

HENRY LOMB

A DOMINANT force in the big world of progress is no more.

On June 13 passed away Henry Lomb, one of the founders of the great firm of Bausch & Lomb Optical Company, at the ripe age of nearly eighty years. Mr. Lomb served with valor in the Civil War, having attained the rank of captain. How much he contributed personally to the success and prestige of his firm is eloquently attested by the fact that it ranks among the largest and most prosperous manufacturing-concerns of optical instruments in the world.

Mr. Lomb was highly esteemed, beloved and revered for his preëminent qualities as a citizen, business-man, philanthropist and friend. His death is a severe loss to the city of Rochester, toward the commercial and educational development of which he gave freely of his time, enthusiasm and wealth. He will be mourned by those who knew the touch of his loving hand and partook of his noble and unstinted charity.

THE LATE BEN PELGRIFT

MR. J. B. PELGRIFT, who was widely known as a salesman of the Scovill & Adams Co., the Anthony & Scovill Co., and, latterly, of G. Gennert, died June 13, of apoplexy. He was quite popular with all he came in contact with, being faithful, sincere and uniformly pleasant. He was striken in Boston, while on a business trip, and a few days later passed away at his home in Brooklyn.

DEATH OF T. H. PATTISON

MR. THOMAS H. (TOM) PATTISON, who died of heart-failure June 21, aged fifty-four years, was a familiar figure among the professional trade — big, jolly and honest. In his earlier years he was associated in business with several large photographic supply-houses of Chicago, including Rice & Thompson, Smith & Pattison and Sweet, Wallach & Co. For the last fifteen years he has been connected with the Eastman Kodak Company, as sales-manager for the American Aristotype Division, and also as editor of the *Aristo Eagle*.

DRESDEN'S GREAT EXHIBITION

OUR readers should remember that the great international photographic exhibition is to be held in the city of Dresden, Germany, in the year 1909. Contributions from amateurs only will be received not later than Nov. 1, 1908, by F. R. Fraprie, 6 Beacon St., Boston, Mass., who will furnish all necessary information, entry-blanks, etc., upon request.

GUM-PRINTS IN COLOR

MR. HENRY RAVELL, the well-known photographer of Cuernavaca, Mexico, specimens of whose pictorial ability have embellished these pages on several occasions, has experimented for years in multiple gum-printing in color, and recently exhibited in New York and Boston a series of prints showing what beautiful and artistic results can be achieved by this process when directed by masterly skill, sound judgment and a fine sense of color— qualities demonstrated in an eminent degree by Mr. Ravell. We shall have occasion, in the near future, to dwell at length on this interesting topic and endeavor to throw some light on the method employed by Mr. Ravell, whose creative work in the most delightful phase of gum has won the admiration of our foremost painters.

AKRON CAMERA CLUB

THE Akron Camera Club closed a very successful season with their first banquet on the evening of May 25.

The club holds meetings regularly on the second and fourth Tuesday evenings of each month from October to May inclusive. During the past year new and commodious quarters were fitted up on the third floor of the Y. M. C. A. Building. Exhibits have been received regularly from the different clubs in the Camera Club Print Interchange, and have proven to be very helpful to the members. The club is also a member of the Pictorial Lantern-Slide Interchange. The officers elected to serve for the coming year are: president, William Spanton; vice-president, Claude Traxler; secretary, Albert J. Hibbs; treasurer, H. D. Teeple; librarian, Carl Scheffer. These officers, together with E. J. Hoskin and John W. Schuler, constitute the Board of Directors.

A QUESTIONABLE PRACTICE

As if the practice of soliciting photographic business through agents' tickets was not bad enough, bogus tickets of the same character are now being sold by impostors. Fortunately, the latter are being arrested and will be properly dealt with by the authorities. This should teach people to be on their guard against this and every class of swindlers. If photographers persist in procuring business through their discredited ticket-system, an outraged community may insist that they be licensed, or that some sort of a curb be placed on their methods. After all, the best plan is to go straight to a respectable photographer and negotiate with him personally about terms, sittings, etc.

BOSTON CAMERA CLUB, OPEN PRIZE COMPETITION IN AMATEUR PHOTOGRAPHY

In order to stimulate a new interest among amateurs residing within twenty miles of Boston, this club has determined to hold an exhibition in the fall of 1908. Any amateur photographer residing within the radius mentioned above may enter one or more specimens of his work, subject to the conditions which follow. It is hoped that all who love our art will compete. There will be but one class — "Outdoor Photography."

The following prizes are offered for this contest:

First, President's Prize, Silver Medal.

Second, Club Prize, Bronze Medal.

Third, Eastman 5 x 7 Developing-Tank, contributed by Robey-French Co.

Fourth, Artura Products, value $5.00, contributed by Pinkham & Smith Co.

Fifth, Kruxo Paper, value $3.00, contributed by Ralph Harris & Co.

Sixth, Subscription to PHOTO-ERA, value $1.50, contributed by PHOTO-ERA.

Seventh, Subscription to PHOTO-ERA, value $1.50, contributed by PHOTO-ERA.

Eighth, Subscription to *American Photography*, value $1.50, contributed by *American Photography*.

Ninth, Subscription to *American Photography*, value $1.50, contributed by *American Photography*.

Tenth, Lloyd Rotary Trimmer, contributed by Andrew J. Lloyd & Co.

CONDITIONS OF THE CONTEST

1. All photographs submitted must have been made from negatives exposed not prior to July 1, 1908, and may be in any medium excepting blue-print.

2. Photographs sent for exhibition may be either framed or mounted without glass, but if passepartout mounting is used the rings on the back must be fastened through the board, and not glued to the surface.

3. All photographs should be securely packed and addressed "Exhibition Committee, Boston Camera Club, 50 Bromfield St., Boston, Mass." If sent by express the charges must be prepaid. All prize-winning pictures in this contest shall become the property of the Boston Camera Club. The club will not be responsible for loss or damage of prints. No prints will be returned unless return-charges are enclosed with the exhibit.

4. All photographs intended for this contest must be in the hands of the Exhibition Committee of the club on or before Oct. 15, 1908.

EXHIBITION COMMITTEE

Phineas Hubbard. C. Peabody.
A. E. Fowler. F. R. Fraprie.
Gurdon R. Fisher. S. H. Wing.
James Dana.

The American Federation of Photographic Societies

An organization for the advancement of pictorial photography, encouragement of pictorial workers, and the development of new talent.

OFFICIAL ORGAN: PHOTO-ERA

President: F. M. TUCKERMAN, 1106 Railway Exchange, Chicago, Ill.
Vice-President: R. E. WEEKS, 166 Lake Street, Chicago, Ill.
Secretary: CLARENCE B. HALE, 215 Jackson Boulevard, Chicago, Ill.
Treasurer: GEORGE C. ELMBERGER, 395 Lee Avenue, Chicago, Ill.
Historian: WM. A. RHEINHEIMER, 1222 Clara Avenue, St. Louis, Mo.

FIFTH AMERICAN SALON

ALL readers of PHOTO-ERA are hereby urged to compete for representation in the Fifth American Photographic Salon. Entry-blanks and full information will be furnished upon request by the secretary of the Federation.

Entries may be forwarded to any of the following addresses: Fayette J. Clute, care Camera Craft, San Francisco, Cal.; C. F. Potter, 420½ Nicollet Ave., Minneapolis, Minn.; George B. Goodwin, Wisconsin Camera Club, Milwaukee, Wis.; C. C. Taylor, Toledo Camera Club, Toledo, O.; E. G. Fountain, 203 Chamber of Commerce, Cleveland, O.; E. C. Brooks, 3546 Washington Ave., St. Louis, Mo.; William H. Zerbe, 345 Spruce St., Richmond Hill, L. I., N. Y.; R. L. Sleeth, 1120 Wood St., Wilkinsburg, Penn.; or direct to American Federation of Photographic Societies, 5 Northwestern University Building, Chicago, Ill.

American entries *must be* framed. No passepartouts accepted. Failure to comply with these conditions will prevent pictures from being submitted to the jury.

FOREIGN ENTRIES

To be sent mounted but *not* framed.

Entries from Great Britain should be sent to arrive by Sept. 1, 1908, to H. Snowden Ward, 6 Farringdon Ave., London, E. C., England, and should be marked, "For American Photographic Salon."

Entries from Italy, to Dr. Cesare Martini, Piazza dei Garibaldi Genoa, to arrive in his hands by Sept. 1, 1908, and should be marked "For American Photographic Salon."

Entries from Norway, Sweden and Denmark, to Copenhagen (Denmark) Camera Club, before Sept. 1, 1908, and should be marked "For American Photographic Salon."

Entries from Australia, to A. Hill Griffiths, 66 King St., Sydney, N. S. W., to arrive in his hands by Sept. 1, 1908, and should be marked "For American Photographic Salon."

Entries from all other countries should be sent direct to The American Federation of Photographic Societies, 5 Northwestern University Building, Chicago, Ill., U. S. A., marked "For

American Photographic Salon, in bond to Chicago," and should arrive in Chicago Custom House by Oct. 1, 1908.

Accepted foreign entries will be framed at the expense of the Federation.

CONDITIONS

1. Entries must be in the hands of the American Federation, 5 Northwestern Building, Chicago, Ill., U S. A., by noon of *Oct. 1, 1908.*

2. There will be no invited work. All prints will be submitted to the jury.

3. No work accepted by former American Salons will be eligible.

4. Entries must be suitably framed (not passepartout) and the title *with name and address of entrant*, plainly written on back of each — except in case of foreign contributors.

5. A list of titles must be sent separately by mail, giving name and address of sender, price of each, if for sale, and special instructions, if any. This list should be in the hands of the secretary a few days before the closing of entries.

6. All work, mounting and framing excepted, must be done by entrant. Sign names of collaborators.

7. Pictures will be returned as soon as practicable after the close of the exhibition.

8. Each contributor must pay the expense of transportation to and from the exhibition.

9. A commission of fifteen per cent will be charged upon each sale by the various clubs holding the Salon.

10. A catalogue will be forwarded to each exhibitor.

CHICAGO CAMERA CLUB

AT the annual election, held June 4, 1908, the officers elected for the ensuing year are as follows: president, F. M. Tuckerman; vice-president, Clarence B. Hale; secretary and treasurer, Geo. C. Elmberger. Directors: Geo. Alexander, W. B. Moore, R. E. Weeks, F. A. Morgan.

P. P. S. OF N. Y.

AN enthusiastic meeting and "two-print" exhibit of Buffalo Section, Number Six, Professional Photographers' Society of New York, was held June 12, at the studio of F. Doble.

The prints were thoroughly and interestingly criticized by Mr. E. F. Hall.

A beautiful gold watch, handsomely inscribed, was presented by the section to Mr. Hall — upon the occasion of his retirement from the photographic business in this city.

In presenting the watch, Chairman Harry A. Bliss spoke very feelingly of the good work done by Mr. Hall in upholding the dignity of the profession, stating that his career in this city was one of which any one might well be proud.

SALON CLUB

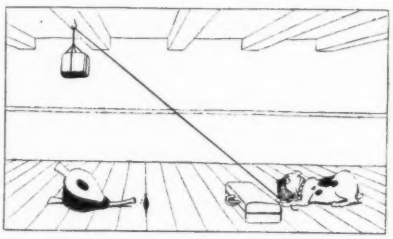
As a result of the recent annual election of this organization the officers for the year of 1908–09 are as follows: director, William H. Zerbe, 345 Spruce St., Richmond Hill, L. I.; secretary, W. & G. Parrish, 5607 Cabanne Ave., St. Louis, Mo Members of the Salon Committee: C. F. Potter, Jr., 620½ Nicollet Ave., Minneapolis, Minn.; John Chislett, Crown Hill, Indianapolis, Ind.; Sarah W. Holm, 397 West State St., Chicago, Ill.

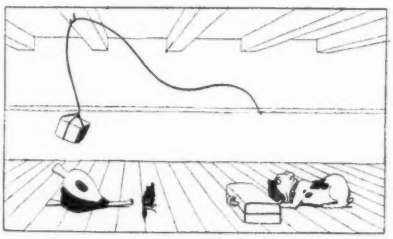
LOS ANGELES CAMERA CLUB

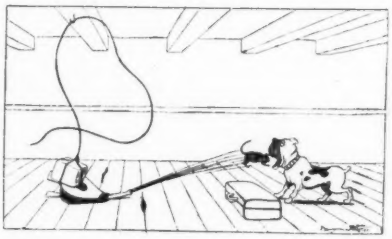
WITH "Better Pictures" as their motto, and artistic photography as their object, the Los Angeles Camera Club was recently organized by camera enthusiasts of that city. T. M. Jenkins, 123 South Flower St., was elected president, and C. E. Smith, 2036 Echo Park Ave., secretary.

THE KNOWING DOG

THOSE of our readers who studied Harry Edwards's simple and ingenious method of shutter-testing in the November issue of PHOTO-ERA MAGAZINE will at once see the similarity of the mechanical principle made use of in the following pictures. The illustrations are taken from the 1907 Calendar of *Fliegende Blatter.*







WITH THE TRADE

ARTISTIC SOUVENIR

WITH commendable enterprise the publishers of the greatest juvenile magazine in the world, *Youth's Companion*, have prepared a portfolio containing ten superbly-executed duogravures — each a separate sheet suitable for framing and illustrating the leading prize-pictures of their twelfth annual exhibition of amateur photographs. A set of these beautiful prints, showing the character and quality of the most successful work, should be in the hands of every worker interested in the thirteenth annual contest of the *Youth's Companion*, contributions to which are being solicited by the publishers. The contest closes Nov. 4, 1908.

COMPLEX EXPOSURE-METERS DOOMED

THE great stumbling-block in the path of the beginner — correct exposure — has at last been removed. Costly and complicated exposure-meters — devices that require mental stunts and valuable time — are now superseded by a new device, the acme of simplicity; viz., the Autotime Camera Scale. This is quickly fitted to any camera, operates easily, cannot be lost and costs only $1.50. Sold by all dealers. Illustrated circular with full particulars cheerfully sent, to any one, for the asking, by the Autotime Co., Times Building, New York City.

A VOLUMINOUS CATALOG

WE have received a copy of one of the largest descriptive price-lists devoted to photographic supplies ever issued. It is published by George Murphey, Inc., 57 East 9th St., New York City.

DAYLIGHT DEVELOPMENT OF PLATES

THOSE photographers who prefer to use plates but dislike the hot, stuffy dark-room in summer should inform themselves concerning the Davis Daylight Developing-Machine, advertised in our Classified Department. It is simple, compact and practical in every way, making one absolutely independent of a dark-room.

By the use of a special clip, furnished free when requested, the machine may be used for developing Autochrome plates, thus avoiding all danger of fogging, scratching or frilling.

SENECA CAMERAS

THE worker who contemplates buying a view-camera will do well to first consult the Seneca catalog mentioned in our advertising-pages. Seneca cameras have several exclusive features which are well worth considering, and ten days' trial is generously offered by the manufacturers in order that these features may be inspected by the prospective purchaser.

A FOCUSING-SCALE THAT WORKS BY SENSE OF TOUCH

IN quick-action camera work the photographer must either use a lens of so short focus that it is merely a toy, or possess some means of adjusting the focus other than through the customary use of the ground-glass. The popular camera meets this requirement by a graduated focusing-scale which, however, requires the eye to be withdrawn from the subject, often at the critical instant. The only other device hitherto offered to remedy this vital defect has been the costly reflecting-camera in which a mirror reflects the scene to be pictured up to the moment of exposure. Yet this admirable arrangement confines the eyes to the ground-glass, limits the view and hampers the action too much for use with quick-moving, wild creatures. For there is a loss of time in its use, comparable to that which the sportsman would suffer if he located his flushed bird by its reflection in a mirror, as contrasted with his direct observation. The time lost, hardly appreciable in itself, spells the difference between success and failure.

Mr. Julian A. Dimock has patented a device which he has used for years, and to which he ascribes much of his success with leaping tarpon, wild turkeys, bucking bronchos, angry crocodiles, canoes shooting rapids and other rapid-action work. In his camera the focusing-screw projects through the side of the camera and is controlled by a milled head, which is held between the thumb and middle finger of the left hand. The forefinger rests upon a pointer which projects radially from the milled head and springs lightly into notches cut in a raised disc which surrounds it. As each of these notches indicates a known distance, for which the lens is focused, the hand of the photographer soon learns to conform automatically to his judgment of the distance of the subject. When, in tarpon fishing, the distances are marked on the line by ribbons, it becomes easy to preserve the exact focus. So, when the fish leaps out of water, the camera is ready for him. The inventor says that often, when birds have flown up near him or fishes jumped unexpectedly, he has turned half round, leveled his camera, and made successful shots while his focusing-hand acted instinctively.

A SEASONABLE BARGAIN-LIST

COMPLETE Outfit Catalog and Bargain List No. 25, issued by Ralph J. Golsen, 58–60 Wabash Ave., Chicago, Ill., should be in the hands of every person contemplating the purchase of photographic supplies, new or second-hand. A copy of this condensed, but explicit, catalog should be in the hands of every person interested.

XUM

"RAFFAËLLI" SOLID OIL-COLORS

MISS B. I. BARRETT, who wrote the serial article, "How to Color Photographs," which appeared recently in PHOTO-ERA, has the following to say about these wonderful paint-sticks: "I am more than delighted with the colors. It is not necessary to say anything about their quality, as Winsor and Newton's are universally acknowledged to be the highest standard, but it may be well to say something about their practicability, because their peculiar form makes them a little difficult to handle at first, and might deter some from attempting their use. This is soon overcome, as they are of just the right consistency and can be used with the ordinary tube colors if desired, the work being improved or completed with the brush afterward or worked upon in almost any fashion. The actual manual labor, the inconvenience and fatigue of transporting all one's sketching-materials, with the really hard work of painting in oils, out-of-doors, have been the cause of my abandoning many a sketching-trip that would have been of great value to me. The 'Raffaëlli' colors have changed all this, and will, therefore, be of the greatest advantage to me."

AN INDISPENSABLE ACCESSORY

No worker should be without a copy of Wellcome's "Photographic Exposure-Record and Diary, 1908." The book — the size and thickness of an ordinary diary — contains much up-to-date information that is practical and reliable, relating to every important subject in the practice of photography. It is indispensable, if only for the purpose of recording negative and positive exposures for which ample provision is made. One of its several valuable features is Wellcome's Exposure Calculator, a simple and trustworthy device requiring *but one turn* of the disk to give the exact time required. The entire little book will be sent, post-paid, and promptly, to any one, on receipt of *only fifty cents* in stamps or money order, by Wilfred A. French, Publisher of PHOTO-ERA, 383 Boylston St., Boston, Mass.

BOOK REVIEW

INVESTIGATIONS ON THE THEORY OF THE PHOTOGRAPHIC PROCESS. By S. E. Sheppard and C. E. Kenneth Mees. Illustrated. 12mo, cloth, 342 pages, $1.75, net. Longmans, Green & Co. London, New York, Bombay and Calcutta.

This volume is a comprehensive account of investigations made during a period of four years, and bearing upon the physical chemistry of exposure, development and fixation, and the sensitometry of photographic plates. The authors have conducted their experiments so thoroughly, with such accuracy, and their reasoning is so lucid and logical that, even though they themselves were less well known, their present work would yet command attention as authoritative. To one who is interested in the basis of photography, and particularly to the scientific investigator, the chapters on "The Statics and Dynamics of Development," "The Theory of Fixation," "The Nature of the Latent Image" and "The Estimation of the Color-Sensitiveness of Plates" will be of absorbing interest

VOIGTLÄNDER METAL CAMERAS

THE latest catalog issued by Voigtländer & Sohn, A.G., is devoted to important novelties, chief of which are the metal cameras made by this eminent firm. The catalog features three styles; viz., the Reflex, fitted with Heliar lens; the Alpine, with Collinear lens, and the Folding, with Collinear and Dynar lenses. That these metal cameras will be received with enthusiasm by the painstaking and progressive worker, desiring the best results, there is no doubt. The prices, too, are the lowest consistent with superior workmanship. As to the lenses, their qualities represent the pinnacle of optical perfection. The same is true of the Prism Binoculars and Field-Glasses, also featured in this exceedingly interesting catalog, which will be mailed free to any one by the Voigtländer & Sohn A. G. Optical Works, 225 Fifth Ave., New York City.

THE PRISM" IN NEW DRESS

THE popular little magazine which was introduced by the Bausch & Lomb Optical Co. has undergone a pleasing change in size as well as contents. The June issue begins Volume 2, which is twice the dimensions of Volume 1, is artistic in appearance, excellently printed and illustrated, as well as more practical and scientific than formerly. As the editor is the well-known photographic authority and expert, Mr. C. H. Claudy, *The Prism* now devotes all its ammunition shooting at one target. It has but one story to one issue, and that one reasonably complete and illustrated and conveys real information, instead of splitting itself into several parts devoted to several subjects and but skimming the surface. *The Prism* has now seriously entered the field of photographic literature, and it will be sent, free and post-paid, to any one desiring it, by the publishers Bausch & Lomb Optical Co., Rochester, N. Y.

GRAFLEX RESULTS

ONE of the most interesting pieces of advertising-literature which we have seen recently is "Graflex Results," issued by the Folmer & Schwing Division of the Eastman Kodak Co. It is a dainty illustrated booklet containing an expression of appreciation of Graflex cameras by C. H. Claudy, the well-known writer and photographer. Words of praise could not come from a better source, and Mr. Claudy's work with Graflex cameras indicates that his high opinion of this line of cameras is amply justified. The booklet will be sent free to any reader of this magazine who is sufficiently interested to request it and will mention PHOTO-ERA.